AFGHANISTAN

MEDAIR AFGHANISTAN INTERNITIONAL (MEDAIR)

ANTHROPOMETRIC AND MORTALITY SMART SURVEY FINAL REPORT

Kandahar Province, Afghanistan

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Conducted by:

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ACRONYMS

ACF	Action Contre la Faim
ARI	Acute Respiratory Infection
CDR	Crude Death Rate
CHF	Common Humanitarian Fund
CSO	Central Statistical Office
DEFF	Design Effect
ENA	Emergency Nutrition Assessment
EPI	Expended Program on Immunization
FS	Food Security
GAM	Global Acute Malnutrition
HAZ	Height for Age Z-score
HH	Household
HHS	House Hunger Score
IMAM	Integrated Management of Acute Malnutrition
IYCF	Infant and Young Child Feeding
MAM	Moderate Acute Malnutrition
MoPH	Ministry of Public Health
MUAC	Midupper Arm circumference
NEW	Nutrition Extension Worker
SAM	Severe Acute Malnutrition
SCI	Save the Children International
SMART	Standardized Monitoring and Assessment of Relief and Transitions
TFU	Therapeutic Feeding Unit
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
WAZ	Weight for Age Z-Score
WFH	Weight for Height
WHO	World Health Organization
WHZ	Weight for Height Z-Score

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1. EXECUTIVE SUMMARY

Kandahar is the second largest province in Afghanistan with 17 districts and a population of about 1,151,100[1]. Kandahar province has been at the heart of the conflict between the AOG and the IMF for over a decade. Previous decades of war and insecurity from AOGs has taken its toll on the region's economy, healthcare staff and facilities, infrastructure and produced a large IDP population around Kandahar City. In large part due to the insecure environment there continue to be significant humanitarian needs which have not been possible to address.

The overall objectives of the Standardized Monitoring and Assessment of Relief and Transitions (SMART)/knowledge practice and coverage (KPC) survey was to evaluate the past nutrition service activities and to collect baseline information for the Mennonite Central Committee (MCC) funded project started in July 2016. The survey aimed at elucidating the current nutritional status of children under five years of age and women of reproductive age among vulnerable populations living in districts of Kandahar Province where Medair is covering the gaps in nutrition services, and identify possible health and WASH factors contributing to their nutritional status. The survey design was a cross sectional study with two-stage cluster sampling using SMART Methodology. The survey was conducted from September 18th to October 9th, 2016 and covered 6 districts in Kandahar province namely Kandahar City, Daman, Arghistan, Takhtapol, Maiwan, and Spin Boldak. Spin Boldak has no Medair services now. Therefore, the results are representative of these 6 districts but are not fully representative of the entire Kandahar province.

Anthropometric Results

Single global acute malnutrition (GAM) rates for children 6-59 months by **combined WHZ and MUAC** based on the requests of the Afghanistan Nutrition Cluster were, as follows:

- Overall: 16.4% (14.3 – 19.2, 95% CI) and SAM 4.7% (3.3 – 6.0, 95% CI)
- Urban area: GAM rates are 11.4% (8.2 - 14.7% CI) with SAM 2.1% (0.7 - 3.6% CI)
- Rural districts: GAM is 20.6% (17.1 - 24.0% CI) with SAM 6.5% (4.4 - 8.6% CI).

Using the traditional SMART methodology the following results were obtained. When WHZ and MUAC were considered separately the **overall GAM rate by WHZ** for children 6-59 months identified by weight–for–height <-2 Z-score (WHO 2006) was 7.7 % (5.9 - 10.0 95% C.I.) and SAM 1.1 % (0.6 - 1.9 95% C.I.). Proxy GAM utilizing a MUAC <125 mm—a better measure of mortality risk-- was 12.1% (8.9 – 16.2 95% C.I.).

- Urban area: 5.4% (3.8 - 7.5 95% C.I.), SAM 0.8% (0.3 - 2.5 95% C.I.)
- Rural area: 9.1% (6.4 - 12.9 95% C.I.), SAM 1.1% (0.5 - 2.4 95% C.I.)

Overall proxy GAM by MUAC 12.1% (8.9 - 16.2 95% C.I.) and SAM 3.8% (2.3 - 6.2 95% C.I.)

- Urban area: 6.9% (3.8 - 12.4 95% C.I.), SAM 1.1% (0.2 - 5.1 95% C.I.)
- Rural area: 15.8% (11.3 - 21.7 95% C.I.), 5.7% (3.4 - 9.5 95% C.I.)

The prevalence of stunting and underweight in children under five were high at 58.8% (54.4 - 63.0 95% C.I.) and 30.2% (25.7 - 35.1 95% C.I.) respectively.

Overall 8.1% of women of reproductive age (15-49 years old) had a MUAC measurement less than 21 cms and 17.3% had MUAC reading <23 cms.

[1] Settled Population of Kandahar province by Civil Division , Urban, Rural and Sex-2012-13

Additional Indicator Results

The analysis of indicators linked to possible contributing factors revealed low vitamin A supplementation coverage (57.2% in the city and 28% in the rural districts) and low deworming coverage for children ages 12- 59 months (43.6% for city and only 22.5% in rural area). Measles vaccination coverage for the 12-59 months old (confirmed by card or caregiver recall) was 74.1% in the city area compared to just 55.4% in the rural areas—well below levels needed for the prevention of outbreaks. Regarding infant and young child feeding (IYCF) key practices, preventive behaviors are suboptimal. Early initiation of breastfeeding was low (63.7% urban, 65.2% rural areas). The proportion of children exclusively breastfed during the first 6 months was also low in both areas (51.4% urban and 40.4% rural) despite a significant increase from the 2015 SMART survey with exclusive breastfeeding reported at 34%.

This survey contributes to the body of evidence on the nutritional situation in Kandahar Province and the need for **continuation of decentralized emergency IMAM interventions** in Kandahar particularly within the survey catchment and project area. It also shows the importance of rural programming where malnutrition levels were measured as higher. As the traditional GAM by WFH is lower than that obtained by MUAC linked to higher mortality in this survey, the single combined GAM rates (WHZ and MUAC combined) gives a better overall combined picture of the nutritional situation and the complementarity of these indices for decision making as well as admission and treatment.

We recommend that at mobile clinic level both WHZ and MUAC be used for admission. Children referred to the facility by the community active case finding teams should have their nutrition status confirmed by one of the methods and if the child does not meet the admission criteria by MUAC, then the same child should be measured using WHZ.

Combined GAM rates of 16.4% and 15.8% by MUAC alone in the rural areas clearly demonstrate an unacceptable level of acute malnutrition amongst children under five in the project area surveyed that needs improved access to urgent IMAM services. But also, the trends of chronic malnutrition in surveyed districts remain worrying. Nearly 3 in every 5 children were found to be stunted, while 2 in every 5 children was underweight. Based on WHO classification of severity of malnutrition, the overall prevalence of stunting was high 58.8 % (54.4 - 63.0 95% C.I.) and of underweight 30.2% (25.7 - 35.1 95% C.I.). Addressing the underlying causes of malnutrition should also be considered for funding and the advocacy strategy aiming at securing funding for appropriate multisectoral interventions addressing key contributing factors.

Regarding maternal nutrition, there is a real urgent need for addressing the **acute malnutrition among women of reproductive age** in addition to children under five given that the rates of acute malnutrition in this group is also high with 17.3% with MUACs < 23 cms.

In summary, this SMART survey clearly delineates the **need for continued multisectoral interventions** in the areas of Kandahar surveyed—with the situation overall worse in the rural vs. urban areas. With persistently high levels of GAM in children U5 and vulnerable women of childbearing age, **expanded IMAM services are needed**. In addition, **multisectoral preventive behaviors underlying both chronic and acute malnutrition should be strengthened** in both rural and urban areas and targeted by BCC programming. With a persistently high two-week retrospective common disease prevalence in children under five at 45.9% in urban areas and 48% in rural, combined with low and slow care seeing from caregivers more should be promoted in this area wherever possible. In addition, preventive practices such as immunization, vitamin A coverage, deworming, appropriate handwashing, exclusive breastfeeding and other IYCF practices need to be further promoted and practiced to address many of the underlying and contributing factors of

malnutrition such as illness. Although a significant improvement was seen in just one year for exclusive breastfeeding, this improvement needs to be expanded to other critical preventive behaviors and requires a multisectoral response.

2. INTRODUCTION

Kandahar province is located in the southern part of the country bordering Pakistan and surrounded by other provinces including Helmand in the west, Uruzgan in the north and in the east. The province contains about 17 districts such as Arghand Ab, Arghistan, Daman, Ghorak, Khakriz, Maruf, Maywand, Miyanishin, Nesh, Panjwaye, Reg, Shah Wali kot, Shorabak, Spin boldak, Takhta pool, Zhari, and Kandahar is the capital city of the province. 1,151,100,[1] live in the province and predominantly are ethnic Pashtuns, although smaller communities
of Tajiks, Hazaras, Uzbeks and Baloch are also found in parts of the city of Kandahar. The main language spoken in the province is Pashto but in some urban centers Dari (Afghan Persian) is also in use as a second language. There are also increasing numbers of returnees from the border regions of Pakistan. Long term conflict and resulting insecurity has prevented many humanitarian actors from establishing and maintaining operations in Kandahar leaving conflict affected communities largely underserved. Many Afghan refugees in Pakistan have been returning and settling in and around Kandahar placing strain on the already limited resources available in the host community.

Table 1: SMART survey population, Source: Update KDH village list 10 Feb 2016 – Provincial Directorate of Public Health.

District	Total Population (inhabitants)
KDH City	867,211
Daman	107,500
Takhta Pool	28,639
Shawalikot	166,579
Maiwand	262,191
Spin Boldak	345,950
Arghistan	80,919
Total	1,858,989

3. OBJECTIVES

3.1. Overall objective

To provide baseline information for the new 3-year project and to fulfil donor's requirements for two CHF funded projects (Round 2&3).

3.2. Specific objectives

- To estimate the current prevalence of acute malnutrition in children aged 6-59 months and PLWs in Kandahar province in general and in projects areas.
- To estimate the retrospective crude and under five death rates in the survey area.

- To determine current prevalence of U5 standard global health indicators and health seeking behaviour: deworming coverage, measles vaccination coverage, Vit A supplementation, fever, diarrhoea, ARI morbidity (fast/difficult breathing)
- To determine key IYCF practices: early initiation of breastfeeding, exclusive BF, continued breastfeeding and introduction of complementary foods
- To determine key WASH indicators: household access to water, sanitation infrastructure and use as well as hand washing practices
- To determine key food security indicators including the Household Dietary Diversity Score (HDDS) and Food Consumption Score (FCS), Months of Inadequate Household Food Provisioning (MIHFP) and the Household Food Insecurity Access Scale (HFIAS).

3.3. Justification of the survey

The purpose of the survey was to investigate and find up-to-date nutrition, mortality, morbidity and IYCF data specific to selected districts and to inform better future programming with evidence based specific information for the areas of intervention of Medair. It was also to establish baseline on nutrition and public health indicators for the new Global Affairs Canada funded project started in July 2016 and final program evaluation for CHF rounds 2&3. Lastly it was a follow-up to the 2015 SMART survey covering the same districts to measure changes since the last SMART survey.

4. METHODOLOGY

4.1 Sample size for the anthropometry and the mortality survey

The sample size of households to survey was determined by using the ENA software 9th July 2015 version. Tables 2 and 3 summarize the sample size calculation parameters for anthropometry and mortality.

Table 2: Parameters for sample size calculation for anthropometry

Parameters for Anthropometry	Value	Assumptions based on context
Estimated Prevalence of GAM (%)	9.2%	Based on MUAC, source: ACF/Medair SMART survey 2015: MUAC <125 mm rates are considered 11.4% (95 % CI: 9.2-14.1).
Desired precision	± 3%	Expected GAM prevalence is low, a precision of ± 3% is more appropriate.
Design Effect	1.5	The population living in the 6 targeted districts is considered as having similar living conditions and the same access to food and social conditions. However, access to health facilities are not similar within the targeted population as some remote areas are not well served by health facilities.
Children 6-59 months	**582**	This number is automatically calculated by the ENA software. This is the minimum sample to be achieved to get reliable estimates of GAM rates.

Average HH Size	7.4	According to Afghanistan Living Conditions Survey (key indicators) of 2014 the average HH size has been 7.3 (2007-2008), 7.4 (2011-2012) and 7.4 (2013-2014) http://cso.gov.af/Content/files/01.pdf . Therefore, based on these sources, an average household size of 7.4 was utilized.
% Children under 5 yo	19%	As recommended by UNICEF since 2015 and used to estimate SAM/MAM caseload for U5.
% Non-response Households	6%	The percentage of non-respondent households was estimated at 6%. Using the same percentage as that of 2015 and similar to the non-response rate of the national nutrition survey for Afghanistan (2013)[2] of 6%.
Households included	**490**	Number of households to sample

Table 3: Parameters for sample size calculation for mortality

Parameters for mortality	Value	Assumptions based on context
Estimated death rate	0.5/10000/day	No updated death rate at population level; Recommended in cases where there is no specific mortality data for the area to be surveyed
± Desired precision	0.3%	To meet set mortality objectives and in line with estimated death rate
Design effect	1.5	Assuming the heterogeneity in the targeted population and the cluster sampling methodology
Recall period	82	Start point of recall period was the start of last Ramadan
Average HH size	7.4	Refer to Table 2 above
% of Non-response households	6%	Refer to Table 2 above
Population to be included	42,250	Population
Households to be Included	611	Households

Based on the parameters indicated above, the mortality sample size was used as the overall sample size since it was the highest and therefore qualifies to represent the other indicators including IYCF. Other additional indicators collected included Vitamin A supplementation coverage, measles vaccination coverage, de-worming coverage, morbidity rates in children under five, health care seeking by mothers/care givers of sick children, IYCF, food security and WASH.

The survey protocol was presented to the Nutrition Cluster assessment working group (AIM-WG) for validation and approval prior to the survey commencement as per Afghan Nutrition Cluster policy.

4.2 Sampling Methodology

A two-stage cluster sampling with probability proportionate to size (PPS) design was used. The Emergency Nutrition Assessment (ENA) for SMART latest version (updated 21st April 2015) was used to determine the sample size as noted above.

[2] National Nutrition Survey of Afghanistan, UNICEF, 2013

Selecting clusters

Two stage sampling methodologies were employed. In the first stage clusters were identified using PPS. It was estimated that one team could cover 12 households per day. By targeting 12 households per cluster per day, a total number of 51 clusters (611HH/12HH/Day= 50.9) were expected to be reached over the duration of this survey. This allowed for the minimum of 582 children 6-59 months of age for anthropometric measurements to be reached.

Out of 204 possible villages in the catchment population, 51 villages, corresponding to 51 clusters were selected in the survey from the sampling frame; Reserve Clusters (RCs) were selected by ENA software (updated 9th July 2015), and were only planned to be used as per protocol if 10% or more clusters were impossible to reach during the survey.

Selecting households and children

For the section stage of sampling, simple random sampling was used when an updated list of the households in the village was available or created with the collaboration of the community leader to randomly select the households. The survey team numbered all households on the list. Then 12 households were chosen randomly from the list by randomly drawing from a hat or using a random number table. In each selected village, the community leader or someone nominated by him helped the survey teams by providing information about the village regarding the geographical organization or the number of households.

Whenever an updated list of HHs was not available and could not be created systematic random sampling was used to identify the households to be surveyed after mapping. Where a village was found to be large in a cluster, it was segmented and a segment was selected randomly to represent the cluster. Existing administrative units such as streets, rivers, neighborhoods, roads, public places like market, schools, and mosques were used for segmentation.

All the children living in the selected house in the correct age range (children from 6 to 59 months old were included for anthropometric measurement and 0-23 months for IYCF were included, without regard to height). If more than one eligible child were found in a household, all were included even twins.

Unoccupied or abandoned houses were excluded from the list before the random selection. Empty households, or households with missing or absent children were revisited at the end of the sampling day in each cluster; any missing or absent children that was not be subsequently found was not be included in the survey. Cluster control forms were used to record all these missed and absent households.

4.3 Case definitions and inclusion criteria

A household as the basic sampling unit was defined as individuals who usually eat from the same pot and sleep under one roof and does not necessarily include biological relatives. This household definition was used to determine the number of households in a polygamous family or in a compound setting. If a polygamous family or a compound contained multiple groups of people

eating from different pots and sleeping under separate roofs then they were considered as separate households for selection purpose.

4.4 Anthropometric Indicators: Definition of nutritional status of children 6-59 months

For each child selected, the following information was collected:

- **Age**: The primary source for this information was the child's immunization card, birth certificate or birth notification. In the absence of these documents, a local calendar of events that had been developed previously was used to estimate the age. See Annex 3.
- **Sex**: This was recorded as either female or for male.
- Weight: A digital weighing scale was used to measure the children's weight. The teams daily calibrated the electronic scale using a standard weight to ensure accuracy. Children were weighed with minimal or no clothing and weight recorded to the nearest 0.1 kg.
- **Height/Length**: A height board was used to measure children above 2 years of age while length was taken for children less than 2 years of age. While ensuring minimal or no movement of the child and maintaining height readings at eye level the height was recorded to the nearest 0.1 cm.
- **MUAC**: Mid Upper Arm Circumference was measured on the left arm, at the middle point between the tip of the elbow and the tip of the shoulder bone while the arm was at a right-angle, then followed by MUAC measurements of the arm while it is relaxed and hanging by the body's side. MUAC was measured to the nearest mm. In the event of a disability on the left arm or a left-handed child, the right arm was used.
- **Bilateral Oedema**: This was assessed by the application of moderate thumb pressure for at least 3 seconds on both feet. If a depression formed upon pressure application, then presence of bilateral oedema was confirmed.

Acute malnutrition

Acute malnutrition in children 6-59 months can be expressed by using two anthropometric indicators: Weight-for-Height (WHZ) or Mid Upper Arm Circumference (MUAC). The presence of bilateral pitting oedema classifies the clinical form of kwashiorkor as severe acute malnutrition. The acute malnutrition in Afghanistan is defined as described below.

Table 4: Definition of acute malnutrition in Afghanistan (according to WHO standards)

Severe Acute Malnutrition (SAM)
W/H <-3 z-score and /or bilateral oedema and/or MUAC < 115 mm
Moderate Acute Malnutrition
W/H <-2 z-score and >= -3 z-score and absence of bilateral oedema and/or MUAC >= 115mm and <125mm
Global Acute Malnutrition (GAM)
W/H <-2 z-score and /or bilateral oedema and MUAC < 125 mm

- **Weight-for-height index (W/H):** A child's nutritional status is estimated by comparing it to the weight-for-height curves of a reference population (WHO standards data[3]). These curves have a normal shape and are characterized by the median weight (value separating the population into two groups of the same size) and its standard deviation (SD).

The expression of the weight-for-height index as a Z-score (WHZ) compares the observed weight (OW) of the surveyed child to the mean weight (MW) of the reference population, for a child of the same height. The Z-score represents the number of standard deviations (SD) separating the observed weight from the mean weight of the reference population: WHZ = (OW - MW) / SD.

- **Mid Upper Arm Circumference (MUAC):** The mid upper arm circumference does not need to be related to any other anthropometric measurement. It is a reliable indicator of the muscular status of the child and is mainly used to identify children with a higher risk of mortality. The MUAC is an indicator of acute malnutrition for children greater or equal to 6 months. MUAC measurements were used in the field for each child to refer malnourished cases to an appropriate centre if needed.

Table 5: Cut offs points of MUAC, children 6-59 months, WHO Recommendations

Target group	MUAC (mm)	Nutritional status
Children 6-59 months	> or = 125 and < 135	No malnutrition
	< 125 and > or = 115	Moderate acute malnutrition
	< 115	Severe acute malnutrition

Nutritional bilateral pitting oedema: Nutritional bilateral pitting oedema is a sign of Kwashiorkor, one of the major clinical forms of severe acute malnutrition. When associated with Marasmus (severe wasting), it is called Marasmic-Kwashiorkor. Children with bilateral oedema of nutritional origin are automatically categorized as being severely malnourished, regardless of their weight-for-height index.

Chronic malnutrition

The height-for-age index: The height-for-age measure indicates if a child of a given age is stunted and so if he is considered as chronically malnourished. This index reflects the nutritional history of a child. The same principle is used as for WHZ index except that a child's chronic nutritional status is estimated by comparing its height with WHO standards height-for-age curves, as opposed to weight-for-height curves. The height-for-age index of a child from the studied population is expressed in Z-score (HAZ). The HAZ cut-off points are presented in table 6 & 7.

Table 6: Cut-off points of the Height for Age index (HAZ) expressed in Z-score, WHO standards

Not stunted	≥ -2 z-score
Moderate stunting	-3 z-score ≤ H/A < -2 z-score
Severe stunting	< -3 z-score

[3] WHO: World Health Organization, WHO growth curves for children, 2006

Underweight

The weight-for-age index: Underweight indicates the weight of the child compared to his age. It is expressed by the Weight-for-Age index and in Z-scores of WHO Standards (2006). The table below show underweight classes with their cut-off points.

Table 7: Cut-off point of the Weight for Age index (WAZ) expressed in Z-score, WHO standards

Normal	≥ -2 z-score
Moderate underweight	-3 z-score ≤ W/A < -2 z-score
Severe underweight	< -3 z-score

4.5 Mortality Indicator Calculation

The mortality indicators included all household members using the household definition.

- ✓ **Crude death rate (CDR):** Number of persons in the total population that dies over a defined period of time. Usually expressed as per 10,000 people per day.

$$CDR = \frac{\text{Nb of deaths x 10000 persons}}{\text{population at mid} - \text{interval x time interval in days}}$$

- ✓ **Under-5 death rate (U5DR):** The probability for those children aged 0-5 years to die during a specific time interval. Usually expressed as per 10,000 children under five per day. Calculated as:

$$U5DR = \frac{\text{Nb of deaths of U5s x 10000 U5s}}{\text{population of U5s at mid} - \text{interval x time interval in days}}$$

4.6 Additional Indicators – Health & WASH

Beside anthropometric data, additional information was collected as follows:

- ✓ **Coverage of measles immunization, deworming and vitamin A supplementation:** Mothers/caretakers of all children under five were asked if children received all the necessary vaccinations, which was subsequently verified by reviewing the vaccination card, if available. If the vaccination card was not available, then the recall of the caregiver option was used. The deworming and the Vitamin A supplementation coverage of children was also recorded using samples to guide recall.
- ✓ **Morbidity:** Mothers/caretakers of children were asked if children had experienced an illness in the past 2 weeks prior to the day of survey. Acute respiratory infection (with fast/difficult breathing), fever and diarrhoea were recorded when symptoms according to the case definition are described by the caretaker.
- ✓ **Mother's nutritional status:** Women of childbearing age were assessed for their nutritional status based on MUAC using the cut-off of 230 mm and 210 mm.
- ✓ **Water storage and usage:** Household heads were asked what type of container they use for storing drinking water and how much water they used in the HH in the last 24 hours to assess the water use per person per day.
- ✓ **Hand washing practices:** The mothers were asked on what occasions they wash their hands and what they use to wash their hands to determine the hand washing practices in the surveyed area.

4.7 Infant and Young Child Feeding Practices Indicators (IYCF)

The IYCF indicators used in the measurement of infant and young child feeding practices asked to the mothers/caretakers of children aged 0-23 months based on WHO guidelines are described as follows.

- ✓ **Child ever breastfed**: Proportion of children who have ever received breast milk.
- ✓ **Timely initiation of breastfeeding:** Proportion of children born in the last 23 months who were put to the breast within one hour of birth.
- ✓ **Provision of colostrum in the first 3 days of life:** Proportion of children who received colostrum (yellowish liquid) within the first 3 days after birth.
- ✓ **Exclusive breastfeeding under 6 months:** Proportion of infants 0-5 months of age who are fed exclusively with breast milk.
- ✓ **Continued breastfeeding at 1 year:** Proportion of children 12 – 15 months of age who are fed with breast milk.
- ✓ **Individual Dietary Diversity Score:** Proportion of 6-23 months children consumed minimum 4 food groups the last 24 hours.
- ✓ **Introduction of solid, semi-solid or soft foods:** Proportion of infants 6-8 months of age who receive solid, semi-solid or soft foods.
- ✓ **Continued breastfeeding at 2 years:** Proportion of children 20–23 months of age who are fed breast milk.

4.8 Training and supervision

Training of the enumerators was done over a ten-day period, and the training was conducted by Medair's Health and Nutrition Advisor. The training included the anthropometry standardization exercise done at the nutrition clinic, and also one full day of pretesting done at a location not included in the survey. Over the ten days of training the following was covered: general survey objectives, survey design, household selection, anthropometric measurements, general signs and symptoms of malnutrition, data collection and interview skills and the mortality interview and questionnaire reviews.

The field work was carried out by 10 teams of data collectors, each team was composed of one team leader and two female data collectors to ensure acceptance of the team amongst the surveyed households, particularly for IYCF questionnaires. Each female member of the survey team was accompanied with a mahram[4] to facilitate the work of the female data collectors at the community level. The teams were supervised by Medair staff and PNOs from the DoPH. Most of the supervisors and enumerators had participated in past surveys. The supervisors had the responsibility to observe and assess that the proper survey procedures and measurements were done correctly and that results were complete; they were with the teams at all times. Furthermore, the supervisors regularly filled out and reviewed the survey supervision forms with the enumerators to ensure quality data collection.

Local event calendar, questionnaires (Annex 5) and consent forms were translated in Pashtu (local language) for better understanding and to avoid direct translation during the data field collection. The questionnaires were back translated using a different translator and were pre-tested during the field test.

[4] Women are not allowed to go outside without being accompanied by one male relative called locally a 'mahram'.

Daily data entry and analysis were done using ENA for anthropometric data, plausibility check, and feedback were provided to the data collection teams. Anthropometric data was directly entered into ENA while IYCF and other data were entered into an excel spreadsheet.

4.9 Data analysis

The anthropometric and mortality data were analyzed using ENA software 2011 version, 9th July 2015. Survey results were presented in reference to WHO standards for overall final analysis.

Other indicators were analyzed using SPSS version 19 and were expressed in percentage out of the sample surveyed.

5. RESULTS

5.1. Childhood Nutrition

Description of the sample

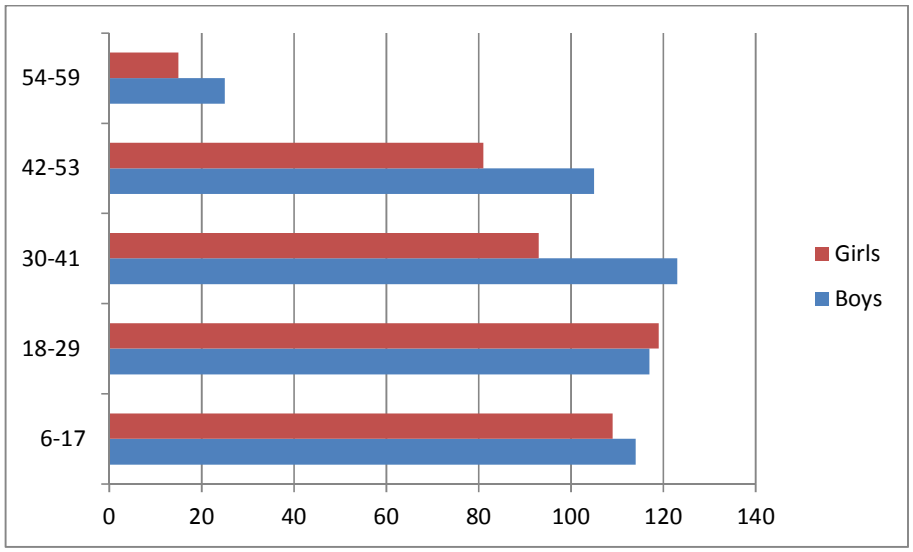
Anthropometric data was collected from 1181 children between 0-59 months (280 less than 6 months and 901 6-59 months). Only the age group 6 to 59 months was used for calculating GAM by definition. There were no non-response households for anthropometric indicators. However, for the mortality indicators no HH responded to the question about death of HH members.
The mean number of people in the household was 11.9 in the urban area and 6.7 in the rural districts. Around 50% of households in both urban and rural areas have a household size that is two times or over the national average of 7.4. Non-response HHs Rate was 0.16 % well within the limit of 10% missing data. Overall this does not affect the GAM estimates as the sample for anthropometry was reached.
The overall boy to girl ratio was 1.2 which is within expected range of values (0.8 – 1.2) for unbiased sampling (0.8 – 1.2) (See **Table 8).**

The age ratio of 6-29 months to 30-59 months was 1.04 meaning there was really no over-representation of any of the age groups. The sex and age pyramid (Figure 1) follows a normal shape.

Table 8: Distribution of age and sex of sample

	Boys		Girls		Total		Ratio
AGE (mo)	**no.**	**%**	**no.**	**%**	**no.**	**%**	**Boy:girl**
6-17	114	51.1	109	48.9	223	24.8	1.0
18-29	117	49.6	119	50.4	236	26.2	1.0
30-41	123	56.9	93	43.1	216	24.0	1.3
42-53	105	56.5	81	43.5	186	20.6	1.3
54-59	25	62.5	15	37.5	40	4.4	1.7
Total	484	53.7	417	46.3	901	100.0	1.2

Figure 1: Population age and sex



5.2. Anthropometric results

Data quality

The anthropometric data were analyzed using ENA for SMART Software (version 2011, 9th July 2015 update). The plausibility check report is available in Annex 1. Exclusion of z-scores is computed from the observed mean (SMART flags): WHZ -3 to 3; HAZ -3 to 3; WAZ -3 to 3. Table 9 below contains a summary of the statistical parameters by index. The overall quality of the survey as evaluated by the ENA software is reported as good, with plausibility score of 20%.

Table 9: Mean z-scores, Design Effects and excluded subjects

Indicator	n	Mean z-scores ± SD	Design Effect (z-score < -2)	z-scores not available*	z-scores out of range
Weight-for-Height	899	-0.28±1.12	1.30	0	2
Weight-for-Age	898	-1.46±1.05	2.33	0	3
Height-for-Age	900	-2.25±1.29	1.68	0	1

* contains for WHZ and WAZ the children with oedema.

Prevalence of acute malnutrition

Combined weight-for-height z-scores (and/or oedema) and MUAC

Based on the Afghanistan Nutrition Cluster and PND recommendations, global acute malnutrition (GAM) rates by WHZ and MUAC were combined into a single rate after estimating them separately. The methodology for combining both rates was provided by ACF (see Annex for template).
The overall combined GAM rate for the surveyed area is 16.4% (14.3 – 19.2, 95% CI) and SAM 4.7% (3.3 – 6.0, 95% CI) For Boys: GAM was 15.4% (12.2 – 18.6 95% C.I.) and SAM 3.5% (1.9 - 5.9 95% C.I.). Girls: GAM was 18.5% (14.7 – 22.2 95% C.I.) and SAM 6.0% (3.7 – 8.3 95% C.I.). No cases of oedema were identified.

Table 10: Overall prevalence of acute malnutrition based on combined weight-for-height z-scores (and/or oedema) and MUAC by sex

	All n = 898	Boys n = 481	Girls n = 417
Prevalence of global malnutrition (Combined WHZ and MUAC)	(151) 16.8% (14.3 - 19.2% CI)	(74) 15.4% (12.2 - 18.6% CI)	(77) 18.5% (14.7 - 22.2% CI)
Prevalence of moderate malnutrition (Combined WHZ and MUAC)	(109) 12.1% (10.0 - 14.2 CI)	(57) 11.9% (9.0 - 14.7% CI)	(52) 12.5% (9.3 - 15.6% CI)
Prevalence of severe malnutrition (Combined WHZ and MUAC)	(42) 4.7% (3.3 - 6.0% CI)	(17) 3.5% (1.9 - 5.2% CI)	(25) 6.0% (3.7 - 8.3% CI)

The prevalence of oedema is 0.0 %

Data disaggregated by area show that in the Urban area (Table 11) GAM rates are 11.4% (8.2 - 14.7% CI) with SAM 2.1% (0.7 - 3.6% CI) and in the rural districts (Table 12) GAM is 20.6% (17.1 - 24.0% CI) with SAM 6.5% (4.4 - 8.6% CI).

Table 11: Urban areas prevalence of acute malnutrition based on combined weight-for-height z-scores (and/or oedema) and MUAC by sex

	All n = 376	Boys n = 196	Girls n = 180
Prevalence of global malnutrition (Combined WHZ and MUAC)	(43) 11.4% (8.2 - 14.7% CI)	(21) 10.7% (6.4 - 15.0% CI)	(22) 12.2% (7.4 - 17.0% CI)
Prevalence of moderate malnutrition (Combined WHZ and MUAC)	(35) 9.3% (6.4 - 12.2% CI)	(17) 8.7% (4.7 - 12.6% CI)	(18) 10.0% (5.6 - 14.4% CI)
Prevalence of severe malnutrition (Combined WHZ and MUAC)	(8) 2.1% (0.7 - 3.6% CI)	(4) 2.0% (0.1 - 4.0% CI)	(4) 2.2% (0.1 - 4.4% CI)

The prevalence of oedema is 0.0 %

Table 12: Rural areas prevalence of acute malnutrition based on combined weight-for-height z-scores (and/or oedema) and MUAC by sex

	All n = 525	Boys n = 288	Girls n = 237
Prevalence of global malnutrition (Combined WHZ and MUAC)	(108) 20.6% (17.1 - 24.0% CI)	(53) 18.4% (13.9 - 22.9% CI)	(55) 23.2% (17.8 - 28.6% CI)
Prevalence of moderate malnutrition (Combined WHZ and MUAC)	(74) 14.1% (11.1 - 17.1% CI)	(40) 13.9% (9.9 - 17.9% CI)	(34) 14.3% (9.9 - 18.8% CI)
Prevalence of severe malnutrition (Combined WHZ and MUAC)	(34) 6.5% (4.4 - 8.6% CI)	(13) 4.5% (2.1 - 6.9% CI)	(21) 8.9% (5.2 - 12.5% CI)

The prevalence of oedema is 0.0 %

GAM by Weight-for-height Z-scores and/or oedema (WHO 2006)

The prevalence of Global Acute Malnutrition (GAM) defined globally as Weight-for-Height Z-scores (WHZ<-2 and/or oedema) rate for five districts of was 7.7% (5.9 - 10.0 95% C.I.). The Severe Acute Malnutrition (SAM) defined as (WHZ<-3 and/or oedema) rate was 1.1% (0.6 - 1.9 95% C.I.), (Table 13[5]).

Data disaggregated by geographical areas (urban vs rural) show:

- Urban areas GAM rates were 5.4% (boys 5.6%, girls 5.1%) and SAM rate of 0.8% (boys 1%, girl 0.6%) by WFH (Table 14).
- Rural areas GAM rates are 9.1% (boys 10.4%, girls 7.6%) and SAM rate of 1.1% (boys 1%, girl 1.3%) by WFH (Table 15).

Table 13: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 899	**Boys** n = 483	**Girls** n = 416
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(69) 7.7% (5.9 - 10.0 95% C.I.)	(41) 8.5% (5.4 - 13.1 95% C.I.)	(28) 6.7% (4.8 - 9.4 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(59) 6.6% (5.0 - 8.7 95% C.I.)	(36) 7.5% (4.6 - 11.8 95% C.I.)	(23) 5.5% (3.8 - 8.0 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(10) 1.1% (0.6 - 1.9 95% C.I.)	(5) 1.0% (0.4 - 2.4 95% C.I.)	(5) 1.2% (0.5 - 2.8 95% C.I.)

The prevalence of oedema is 0.0 %

Table 14: Prevalence of acute malnutrition in Urban area based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 373	**Boys** n = 195	**Girls** n = 178
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(20) 5.4% (3.8 - 7.5 95% C.I.)	(11) 5.6% (3.5 - 8.9 95% C.I.)	(9) 5.1% (2.6 - 9.7 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(17) 4.6% (3.1 - 6.6 95% C.I.)	(9) 4.6% (2.6 - 8.0 95% C.I.)	(8) 4.5% (2.1 - 9.4 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(3) 0.8% (0.3 - 2.5 95% C.I.)	(2) 1.0% (0.2 - 4.2 95% C.I.)	(1) 0.6% (0.1 - 4.2 95% C.I.)

The prevalence of oedema is 0.0 %

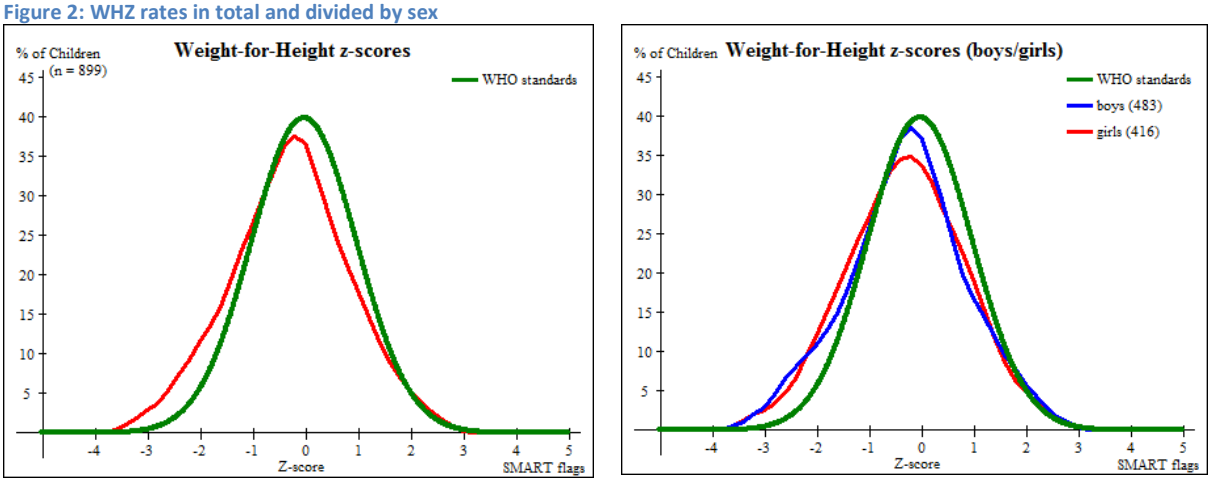
[5] The presence of oedema was crosschecked by the survey supervisor.

Table 15: Prevalence of acute malnutrition in Rural Districts based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 525	Boys n = 288	Girls n = 237
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(48) 9.1% (6.4 - 12.9 95% C.I.)	(30) 10.4% (5.7 - 18.3 95% C.I.)	(18) 7.6% (4.9 - 11.6 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(42) 8.0% (5.6 - 11.4 95% C.I.)	(27) 9.4% (5.1 - 16.6 95% C.I.)	(15) 6.3% (4.1 - 9.7 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(6) 1.1% (0.5 - 2.4 95% C.I.)	(3) 1.0% (0.3 - 3.1 95% C.I.)	(3) 1.3% (0.4 - 4.0 95% C.I.)

The prevalence of oedema is 0.0 %

Figure 2: WHZ rates in total and divided by sex



The distribution curve for WHZ for the sample compared to WHO 2006 standard is presented above (**Figure 2**). The results indicates a displacement of the sample curve to the left of the reference curve an indication of a malnourished population in comparison to the WHO standards. The mean Z-score of the sample population is -0.28 with an SD of 1.12. The standard deviation of is within the acceptable range of 0.8 to 1.2. The design effect (DEFF) determined was 1.30 indicating marginal intra-cluster variations. Boys have a slightly higher prevalence of GAM in comparison to the girls although the confidence intervals are overlapping implying no statistically signficant difference of GAM rates between boys and girls.

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

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	222	6	2.7	27	12.2	189	85.1	0	0.0

18-29	236	0	0.0	16	6.8	220	93.2	0	0.0
30-41	215	0	0.0	7	3.3	208	96.7	0	0.0
42-53	186	4	2.2	9	4.8	173	93.0	0	0.0
54-59	40	0	0.0	0	0.0	40	100.0	0	0.0
Total	899	10	1.1	59	6.6	830	92.3	0	0.0

Analysis of prevalence of severe acute malnutrition by age (Table 16) revealed that severe wasting was concentrated within two age groups 6-17 months and 42-53 months old. As regards moderate wasting, the prevalence of acute malnutrition was more varied between the age groups with the 6-17 month exhibiting the highest prevalence at 12%. In table 20 below it can be seen that all the 11 cases of severe acute malnutrition observed were marasmic.

Table 17: Distribution of acute malnutrition and oedema based on weight-for-height z-scores

	<-3 z-score	**>=-3 z-score**
Oedema present	Marasmic kwashiorkor No. 0 (0.0 %)	Kwashiorkor No. 0 (0.0 %)
Oedema absent	Marasmic No. 11 (1.2 %)	Not severely malnourished No. 890 (98.8 %)

Prevalence of acute malnutrition based on MUAC cut-off classification and/or oedema:

Based on MUAC measurements, GAM prevalence (MUAC <125mm and/or oedema) was 12.1% (8.9 – 16.2 95% C.I.) while the SAM prevalence (MUAC<115mm and/or oedema) was 3.8% (2.3 - 6.2 95% C.I.), see Table 21a. Girls had higher GAM rates 14.6% (10.8 - 19.4 95% C.I.) compared to only 9.9% (6.6 - 14.7 95% C.I.) for boys; and higher SAM rates 5% (3.0 - 8.4 95% C.I.) compared 1.7% (1.3 - 5.6 95% C.I.) for boys. The overall GAM rates are much higher by MUAC 12.1% than by WFH 7.7%. Sex disaggregated GAM rates also show that with WFH boys have higher rates of acute malnutrition than girls but when MUAC is used the rates of acute malnutrition are much higher in girls than boys.

Table 4: Prevalence of acute malnutrition in overall based on MUAC cut off's (and/or oedema) and by sex

	All n = 901	**Boys** n = 484	**Girls** n = 417
Prevalence of global malnutrition (< 125 mm and/or oedema)	(109) 12.1% (8.9 - 16.2 95% C.I.)	(48) 9.9% (6.6 - 14.7 95% C.I.)	(61) 14.6% (10.8 - 19.4 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(75) 8.3% (6.1 - 11.2 95% C.I.)	(35) 7.2% (4.8 - 10.7 95% C.I.)	(40) 9.6% (6.9 - 13.2 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(34) 3.8% (2.3 - 6.2 95% C.I.)	(13) 2.7% (1.3 - 5.6 95% C.I.)	(21) 5.0% (3.0 - 8.4 95% C.I.)

In the city areas GAM and SAM rates by MUAC were 6.9% (boys 6.1%, girls 7.8%) and 1.1% (boys 1%. girls 1.1%) respectively (Table 19).

Table19: Prevalence of acute malnutrition in Urban area based on MUAC cut off's (and/or oedema) and by sex

	All n = 376	Boys n = 196	Girls n = 180
Prevalence of global malnutrition (< 125 mm and/or oedema)	(26) 6.9 % (3.8 - 12.4 95% C.I.)	(12) 6.1 % (2.8 - 12.7 95% C.I.)	(14) 7.8 % (4.4 - 13.5 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(22) 5.9 % (3.5 - 9.6 95% C.I.)	(10) 5.1 % (2.7 - 9.5 95% C.I.)	(12) 6.7 % (3.8 - 11.4 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(4) 1.1 % (0.2 - 5.1 95% C.I.)	(2) 1.0 % (0.1 - 7.6 95% C.I.)	(2) 1.1 % (0.3 - 4.3 95% C.I.)

In rural areas GAM and SAM rates by MUAC were 15.8% (boys 12.5%, girls 19.8%) and 5.7% (boys 3.8%. girls 8%) respectively (Table 20).

Table20: Prevalence of acute malnutrition in Rural area based on MUAC cut off's (and/or oedema) and by sex

	All n = 525	Boys n = 288	Girls n = 237
Prevalence of global malnutrition (< 125 mm and/or oedema)	(83) 15.8 % (11.3 - 21.7 95% C.I.)	(36) 12.5 % (7.7 - 19.7 95% C.I.)	(47) 19.8 % (14.3 - 26.9 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)	(53) 10.1 % (6.9 - 14.5 95% C.I.)	(25) 8.7 % (5.2 - 14.2 95% C.I.)	(28) 11.8 % (7.8 - 17.5 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or oedema)	(30) 5.7 % (3.4 - 9.5 95% C.I.)	(11) 3.8 % (1.7 - 8.3 95% C.I.)	(19) 8.0 % (4.6 - 13.5 95% C.I.)

The younger age group of 6-17 months measured by MUAC just as in the case of measurements by WFH, presented with the highest prevalence of severe wasting 12.6% and moderate wasting 21.5%, see table 21.

Table 21: Prevalence of acute malnutrition by age, based on MUAC cut off's and/or oedema

		Severe wasting (< 115 mm)		Moderate wasting (>= 115 mm and < 125 mm)		Normal (> = 125 mm)		Oedema	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	223	28	12.6	48	21.5	147	65.9	0	0.0
18-29	236	5	2.1	20	8.5	211	89.4	0	0.0
30-41	216	1	0.5	5	2.3	210	97.2	0	0.0
42-53	186	0	0.0	2	1.1	184	98.9	0	0.0
54-59	40	0	0.0	0	0.0	40	100.0	0	0.0
Total	901	34	3.8	75	8.3	792	87.9	0	0.0

Prevalence of Underweight (WHO 2006)

The prevalence of underweight children was 30.2% (25.7 - 35.1 95% C.I.) with the prevalence of severe underweight being 8.4% (6.2 - 11.2 95% C.I.). There were very little differences for levels of underweight between boys and girls, see table 22.

Table 22: Prevalence of underweight based on weight-for-age z-scores by sex

	All n = 898	**Boys** n = 482	**Girls** n = 416
Prevalence of underweight (<-2 z-score)	(271) 30.2 % (25.7 - 35.1 95% C.I.)	(148) 30.7 % (25.3 - 36.7 95% C.I.)	(123) 29.6 % (24.2 - 35.6 95% C.I.)
Prevalence of moderate underweight (<-2 z-score and >=-3 z-score)	(196) 21.8 % (18.6 - 25.5 95% C.I.)	(107) 22.2 % (18.4 - 26.5 95% C.I.)	(89) 21.4 % (16.9 - 26.8 95% C.I.)
Prevalence of severe underweight (<-3 z-score)	(75) 8.4 % (6.2 - 11.2 95% C.I.)	(41) 8.5 % (6.0 - 11.9 95% C.I.)	(34) 8.2 % (5.4 - 12.1 95% C.I.)

Distribution of underweight by age is presented in Table 23 below. The younger age groups 6-17 and 18-29 have the combined higher rates of severe underweight 21.8%; however, the 54 to 59-month old age group has the highest observed moderate underweight rates at 30%.

Table 23: Prevalence of underweight by age, based on weight-for-age z-scores

		Severe underweight (<-3 z-score)		**Moderate underweight (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**		**Oedema**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	222	24	10.8	47	21.2	151	68.0	0	0.0
18-29	236	26	11.0	51	21.6	159	67.4	0	0.0
30-41	214	11	5.1	42	19.6	161	75.2	0	0.0
42-53	186	13	7.0	44	23.7	129	69.4	0	0.0
54-59	40	1	2.5	12	30.0	27	67.5	0	0.0
Total	898	75	8.4	196	21.8	627	69.8	0	0.0

5.3. Prevalence of Stunting (WHO 2006)

The overall prevalence of stunting (HAZ<-2 z scores) was 58.8% (54.4 - 63.0 95% C.I.) – Boys 61.5% (56.3 - 66.4 95% C.I.) and girls 55.6% (50.2 - 61.0 95% C.I.). Whilst the prevalence of severe stunting was 28.1% (23.9 - 32.7 95% C.I.), (HAZ<-3 z scores) – Boys 31.9% (26.5 - 37.8 95% C.I.) and girls 23.7% (19.1 - 29.2 95% C.I.), see Table 24.

Table24: Prevalence of stunting based on height-for-age z-scores and by sex, SMART-Kandahar, Aug 2015.

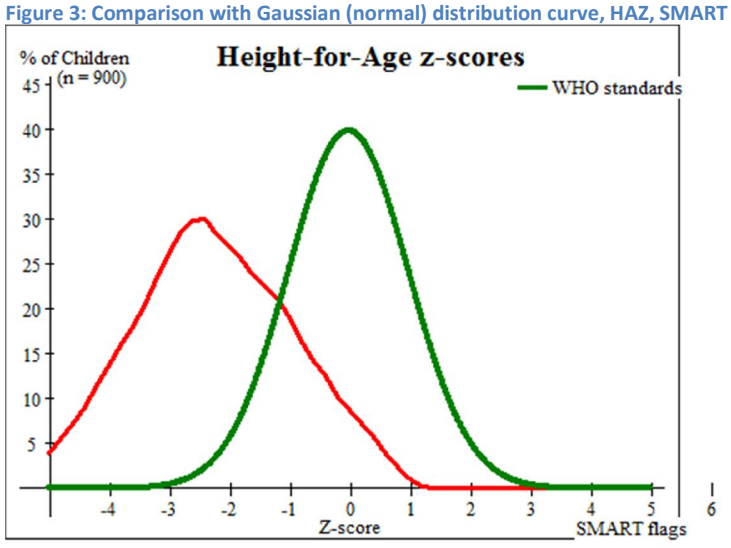
	All n = 900	Boys n = 483	Girls n = 417
Prevalence of stunting (<-2 z-score)	(529) 58.8 % (54.4 - 63.0 95% C.I.)	(297) 61.5 % (56.3 - 66.4 95% C.I.)	(232) 55.6 % (50.2 - 61.0 95% C.I.)
Prevalence of moderate stunting (<-2 z-score and >=-3 z-score)	(276) 30.7 % (27.6 - 33.9 95% C.I.)	(143) 29.6 % (25.4 - 34.2 95% C.I.)	(133) 31.9 % (27.7 - 36.4 95% C.I.)
Prevalence of severe stunting (<-3 z-score)	(253) 28.1 % (23.9 - 32.7 95% C.I.)	(154) 31.9 % (26.5 - 37.8 95% C.I.)	(99) 23.7 % (19.1 - 29.2 95% C.I.)

Severe stunting had higher prevalence in children aged 18-53 months old while moderate stunting was almost evenly distributed across the board from 6 to 59 months of age (Table 25).

Table25: Prevalence of stunting by age based on height-for-age z-scores

		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z-score)		Normal (> = -2 z score)	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**	**No.**	**%**
6-17	222	42	18.9	56	25.2	124	55.9
18-29	236	83	35.2	73	30.9	80	33.9
30-41	216	67	31.0	71	32.9	78	36.1
42-53	186	53	28.5	62	33.3	71	38.2
54-59	40	8	20.0	14	35.0	18	45.0
Total	900	253	28.1	276	30.7	371	41.2

Figure 3: Comparison with Gaussian (normal) distribution curve, HAZ, SMART



Prevalence of overweight (WHO):

The prevalence of overweight is based on weight-for-height in z-score >2 is low at 2.1% overall.

Table 26: Prevalence of overweight based on weight for height cut offs and by sex (no oedema)

	All n = 899	**Boys** n = 483	**Girls** n = 416
Prevalence of overweight (WHZ > 2)	(19) 2.1 % (1.3 - 3.4 95% C.I.)	(10) 2.1 % (1.2 - 3.7 95% C.I.)	(9) 2.2 % (1.0 - 4.6 95% C.I.)
Prevalence of severe overweight (WHZ > 3)	(0) 0.0 % (0.0 - 0.0 95% C.I.)	(0) 0.0 % (0.0 - 0.0 95% C.I.)	(0) 0.0 % (0.0 - 0.0 95% C.I.)

* contains for WHZ and WAZ the children with edema

Table 275: Prevalence of overweight by age, based on weight for height (no oedema)

		Overweight (WHZ > 2)		**Severe Overweight (WHZ > 3)**	
Age (mo)	**Total no.**	**No.**	**%**	**No.**	**%**
6-17	222	3	1.4	0	0.0
18-29	236	5	2.1	0	0.0
30-41	215	5	2.3	0	0.0
42-53	186	6	3.2	0	0.0
54-59	40	0	0.0	0	0.0
Total	899	19	2.1	0	0.0

5.4. Child health indicators

Two weeks retrospective morbidity (children 0-59 months)

Over 45% of children in both urban (45.9%) and rural (48%) communities were sick in the past 2 weeks. The prevalence of diarrhea, fever and ARI disaggregated by area show statistically significant differences between urban and rural areas (with Chi-square test giving *p-values* varying between <0.001 and <0.05). This shows that children from 6-59 months are more likely to suffer from diarrhea, fever and ARI if they live in the rural districts. Diarrhea was a common symptom reported 39.6% and 59.3% of cases in the urban and in the rural respectively and ARI (specifically pneumonia) the least common of the three (see Figure 4 and Table 28).

Health care seeking behaviour of caregivers shows significant differences statistically between urban and rural areas, with those in rural districts far less likely to seek healthcare for their sick child than their counterparts in the city. For example, 59.4% of urban caregivers sought any medical care for children with fever compared to only 36.1% in the rural districts (*p<0.001*). As for ARI, the percentage of caregivers who sought medical care for sick child was 47.9% and 24.7% in the city and rural areas respectively ($p<0.05$). The proportion of caregivers who sought care for sick children on the same day of onset was very low in both areas (26.1% and 18% in the city for ARI and fever respectively; 20.6% and 18.5% in the rural areas for same respective conditions).

Figure 4: Morbidity data

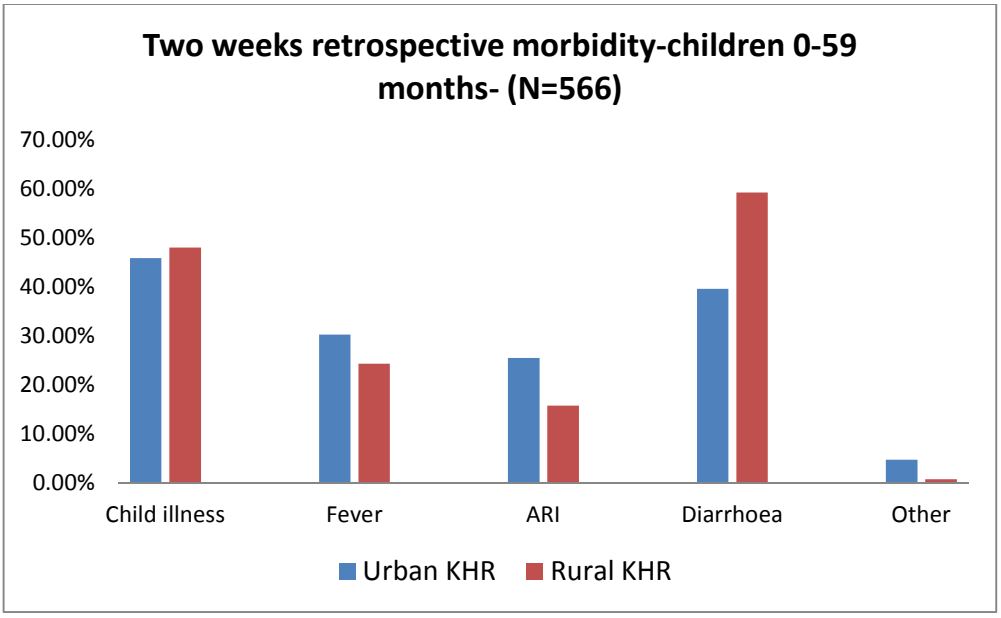


Table 28: Two weeks retrospective morbidity (children 0-59 months)

CORE INDICATORS	Urban Kandahar	Rural Kandahar	Chi-Square test *p-value*
Key disease morbidity: % of 0-59 months children who experienced any sickness in the two weeks prior the survey	45.9% (boys 46.3%, girls 45.5%) N=266	48% (boys 47%, girls 49.6%)	0.336
Diarrhea morbidity: % of 0-59 months children experiencing diarrhea in the 2 weeks prior to the survey	39.6% (boys 42.3%, girls 37%9) N=42	59.3% (boys 53.1%, girls 67.8%)	<0.05
ARI morbidity: % of 0-59 months children experiencing cough AND fast/difficult breathing in the 2 weeks prior to the survey	25.5% (boys 23.1%, girls 27.8%) N=27	15.7% (boys 19.8%, girls 10%)	<0.05
Fever/suspected Fever morbidity: % of 0-59 months children experiencing fever in the 2 weeks prior to the survey	30.2% (boys 32.7%, girls 27.8%) N=32	24.3% (boys 25.9%, 22% girls)	<0.05
Other: % of 0-59 months children experienced other type of illness in the 2 weeks. prior to the survey	4.7% (boys1.9%, girls 7.4%) N=5	0.7% (boys 1.2%, girls 0%)	-

Table 29: Healthcare seeking of caregivers (for children 0-59 months

CORE INDICATORS	Urban Kandahar	Rural Kandahar	Chi-Square test *p-value*
Health care seeking for Fever: % of 0-59 months children with Fever in the 2 weeks preceding the survey whose caregiver sought any medical care/treatment	59.4% (63.5% boys and 55.6% girls) N=106	36.1% (boys 43.4%, girls 26.2%) N=144	<0.001
Health care seeking for Fever: Number of days from onset of illness before healthcare was sought	Same day 18% (boys 15.2%, girls 21.5%) Next day 54.1% (boys 51.5%, girls 57.5%) Three or more days 19.7% (boys 24.2%, girls 14.3%) Don't know 8.2% (boys 9.1%, girls 7.1%)	Same day 18.5% (boys 14.7%, girls 25%) Next day 51.9% (boys 47.1%, girls 60%) Three or more days 27.8% (boys 35.3%, girls 15%) Don't know 1.2% (boys 2.9%, girls 0%)	
Health care seeking for Fever: % of 0-59 months children with Fever in the 2 weeks preceding the survey whose caregiver sought medical care/treatment from an appropriate healthcare provider	65.3% 70.3% boys and 60% girls	50.% (boys 57.5%, girls 35%)	0.055
Health care seeking for ARI: % of 0-59 months children with ARI (pneumonia) in the 2 weeks preceding the survey whose caregiver sought any medical care/treatment	47.9% boys 47.4%, girls 48.3%)	24.7% (boys 26%, girls 22.6%)	0.006
Health care seeking time for ARI: Number of days from onset of illness before healthcare was sought	Same day 26.1% (boys 37.5%, girls 20%) Next day 47.1% (boys 50%, girls 46.7% Three or more days 13% (boys 0%, girls 20%) Don't know 13% (boys 12.5%, girls 13.3%)	Same day 20% (boys 14.3, girls 33.3) Next day 30% (boys 28.6%, girls 33.3%) Three or more days 40% (boys 57.1%, girls 0%) Don't know 10% (boys 0%, girls 10%)	0.381

Immunization, supplementation and deworming

The measles vaccination coverage for the 12-59 months old, confirmed by card or by recall was 74.1% in the city area compared to just 55.4% in the rural areas. The percentage of children older than 12 months that have received deworming tablets was reported as 43.6% for city and only 22.5% in rural districts; whereas vitamin A supplementation coverage was reported to be 57.2% in the city and 28.4% in the rural districts. Each of the three indicators (vitamin A, measles vaccination and deworming tablets) showed a statistically significant difference in coverage between urban and rural areas (p<0.001). (See Figure 5 and Table 30 below).

Figure 5: Immunization, Vitamin A and Deworming coverage by area

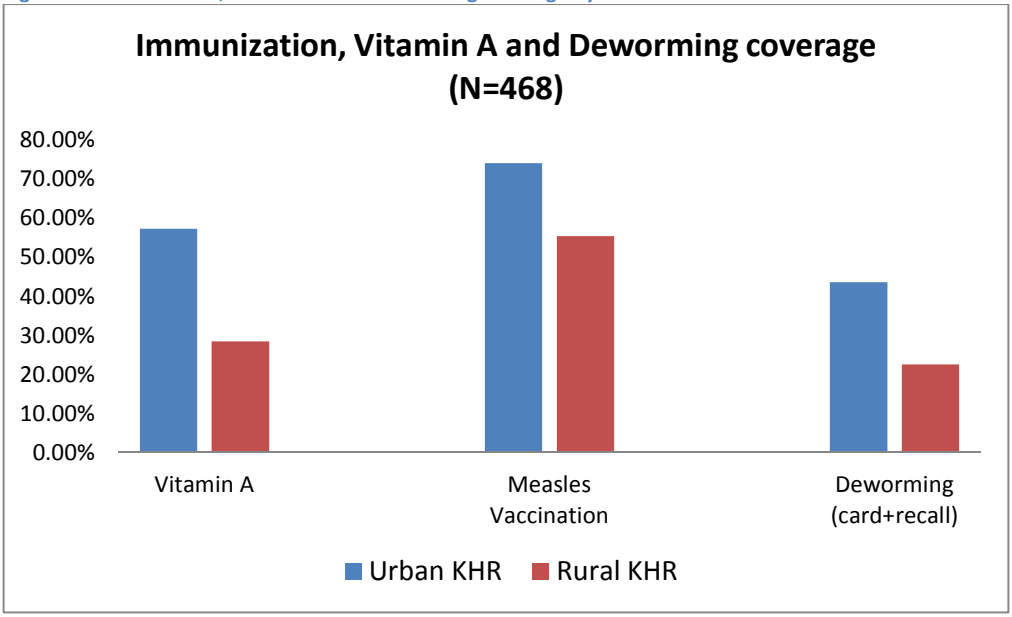


Table30: Immunization, Vitamin A and Deworming coverage by area and sex

CORE INDICATORS	Urban Kandahar	Rural Kandahar	Chi-Square test *p-value*
Vitamin A supplementation: % of children that received Vitamin A in last 6 months prior to the survey	57.2% (boys 54.1%, girls 60.3%) N=243	28.4% (boys 27.6%, girls 29.6%) N=225	<0.001
Measles vaccination coverage % of children ages 12 -59 months who received measles vaccination	74.1% (46.1% card, 28% recall), Boys 74.4%, Girls 73.7% Don't know 3.8% N=238	55.4% (34.5% card, 20.9% recall) Boys 58.1%, Girls 52.3% Don't know 0.5% N=219	<0.001
Deworming programme coverage: % of eligible children (≥12 mo.) who received deworming medicines in the past 6 months prior to the survey	43.6% (boys 43.9%, girls 43.3%) N=242	22.5% (boys 24.2%, girls 20.4%) M=225	<0.001

5.5. IYCF Indicators

Caregivers in the urban areas were by far more likely to receive IYCF and essential health and nutrition messages compared to those in the rural areas (72.2% in urban and 54.6% in rural areas *p-value <0.001*). Of all who received the messages 72.2% of city caregivers could recall three or more messages compared to 54% in the rural areas (Figure 6, Table 31).

The proportion of children who have ever received breast milk is very high in both urban (96.6%) and rural (100%) settings which are very close to the findings of the 2015 survey (98% aggregated) and early initiation of breastfeeding is at 63.7% (urban) and 65.2% (rural). However, the proportion of children exclusively breastfed is low in both areas (51.4% in the urban and 40.4% in the rural area). However, it is higher than the 34% reported in the 2015 survey report. Among the children who were not exclusively breastfed 80% and 69.7% of children in the city and rural areas respectively were weaned off breast milk before 6 months of age.

Figure 6: Infant and Young Child Feeding Practice (breastfeeding) by area (N=560)

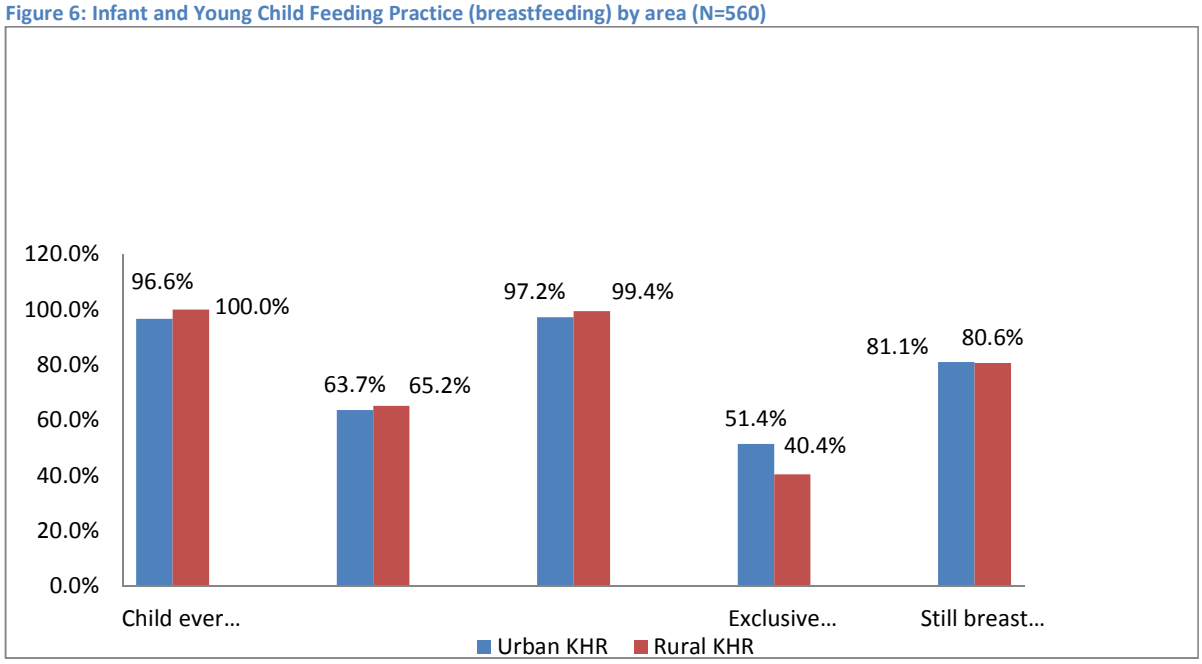


Table 31: Infant and Young Child Feeding Practice

CORE INDICATORS	Urban Kandahar	Rural Kandahar	Chi-Square test *p-value*
Ever breastfed: Proportion of children who have ever been breastfed	96.6% (boys 93.3%, 100% girls)	100% (boys 100%, girls 100%)	<0.05
Early initiation of breastfeeding: Proportion of children born in the last 23 months who were put to the breast within one hour of birth	63.7% (boys 61.3%, girls 65.9%)	65.2% (boys 64.4, girls 66.2%)	0.134
Proportion of children who	97.2%	99.4%	0.182

received **colostrum** (yellowish liquid) within the first 3 days after birth	(boys 95.7% girls 98.6%)	(boys 100%, girls 99.6%)	
Exclusive breastfeeding: Proportion of infants <6 months of age who are exclusively breastfed	51.4% (boys 52.6%, girls 50%)	40.4% (boys 36.8%, girls 47.4%)	0.202
Continued breastfeeding at 1 year: Proportion of children 12–15 months of age who are still breastfed.	81.1% (boys 63.6%, girls 88.5%)	80.6% (boys 93.3%, girls 68.8%)	0.366
Individual Minimum Dietary Diversity Score: Proportion of 6-23 months children consumed minimum 4 food groups the last 24 hours.	1.5% (92.4% of urban children 6-23 months old had consumed just one food group in the last 24 hours)	1.5% (97.6% of rural children 6-23 months old had consumed just one food group in the last 24 hours)	
Introduction of solid, semi-solid or soft foods: Proportion of infants 6-8 months of age who receive solid, semi-solid or soft foods.	Insufficient respondents for this question; therefore, not able to be calculated representatively.		
Continued breastfeeding at 2 years: Proportion of children 20–23 months of age who are fed breast milk.	84.6%	86.6%	

5.6. Maternal Nutrition status and hand washing

Data was collected on physiological status and nutritional status based on MUAC cut-off for all women of reproductive age (15 and 49 years), found in the selected households. The results are presented in the below tables.

Table 32: Physiological status of women of reproductive age (15 – 49 years), (n=949)

Status	Urban areas (N=442)	Rural areas (N=507)
Pregnant	(54) 12.2%	(89) 17.6%
Lactating	(154) 34.8%	(195) 38.5%
Pregnant & Lactating	(9) 2%	(24) 4.7%
Non-pregnant & non-lactating	(225) 51%	(199) 39.3%

Overall 8.1% of women of reproductive age (15-49 years old) had MUAC measurement less than 21 cm and 17.3% had MUAC reading <23 cm. Tables 28 and 29 below show that in the city areas there were 9.3% women with MUAC <21 cm and in the rural areas 7.1%. In total 16.1% of women in the city had MUAC measurement <23 cm and in the rural areas there were 18.1%.

Table 33: Nutritional status of women of reproductive age based on MUAC

(n=949)	Urban areas		Rural areas		Total	
	N	%	N	%	N	%
MUAC <21 cm	41	9.3%	36	7.1%	77	8.1%
MUAC <23 cm	72	16.3%	92	18.1%	164	17.3%

Table 34: Nutritional status of women of reproductive age based on MUAC disaggregated by physiological status

	Women with MUAC <21 cm			Women with MUAC <23 cm		
	Urban areas (N=442)	Rural areas (N=507)	Overall	Urban areas (N=442)	Rural areas (N=507)	Overall
Pregnant	7.4%	9%	8.4%	22.2%	22.5%	22.4%
Lactating	8.4%	3.1%	5.4%	15.6%	12.3%	13.8%
Pregnant and lactating	0%	8.3%	6.1%	22.2%	33.3%	30.3%
Not pregnant and not lactating	10.7%	10.1%	10.4%	15.1%	20.1%	17.5%
Overall	9.3%	7.1%	8.1%	16.3%	18.1%	17.3%

Hand washing practices before and after events

Figure 7: Hand washing

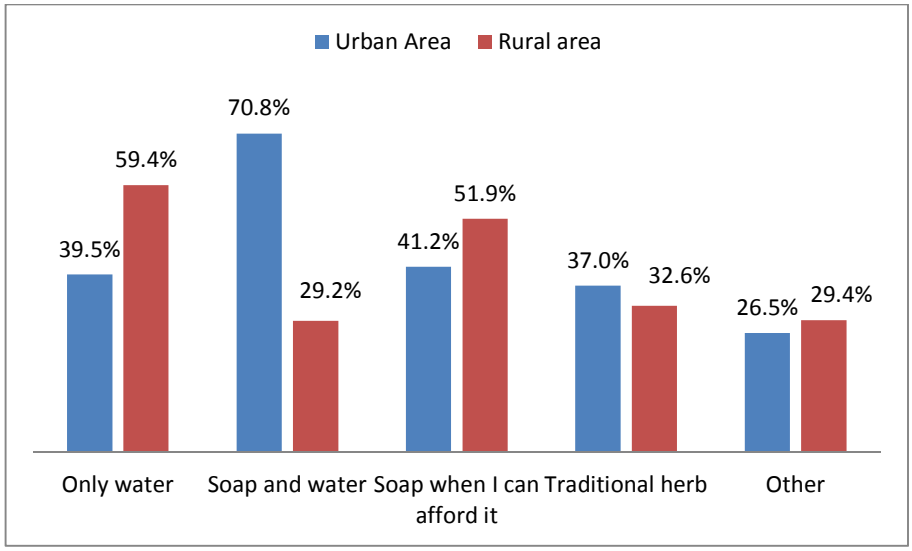
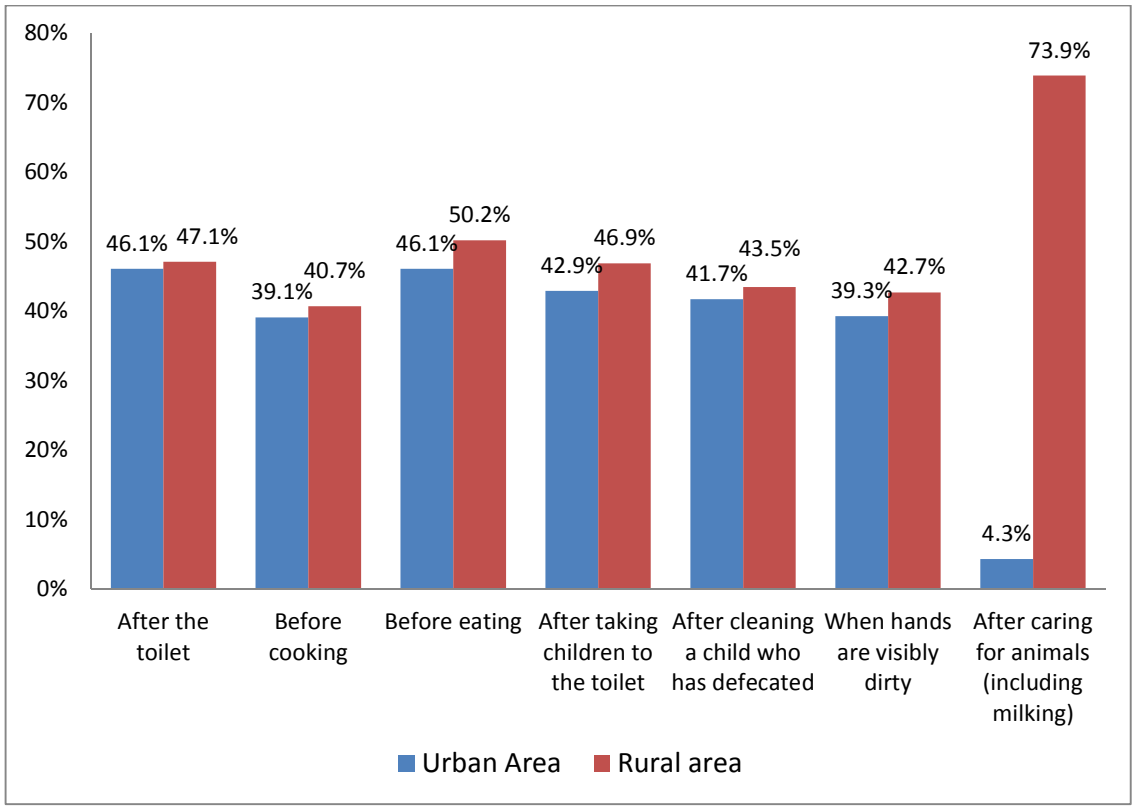


Figure 8: Hand washing at 4 critical moments

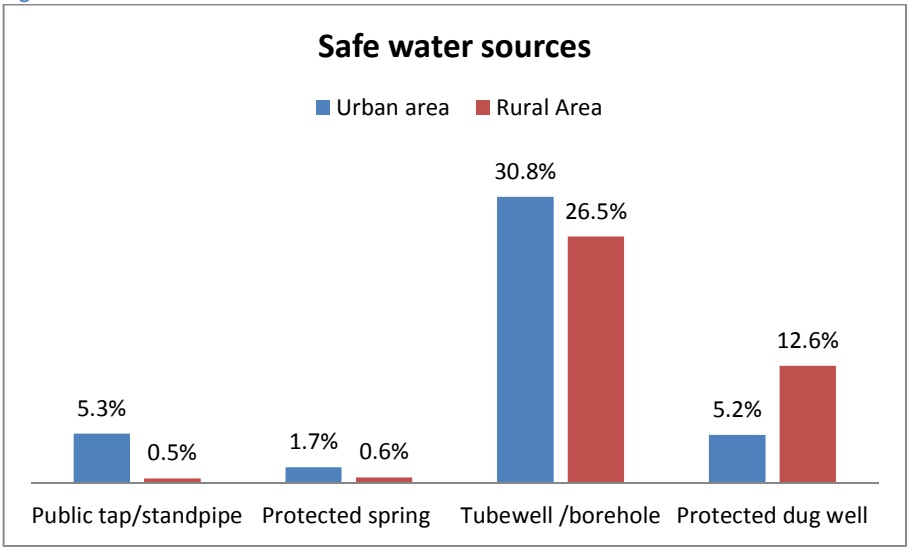


Note: This was a multiple response question; percentages don't add up to 100.

5.7. Household water source

Access to safe drinking water: Current main drinking water sources in Kandahar included boreholes fitted with hand pumps and protected dug wells. There are few standpipes mainly in urban area.

Figure 9: Safe water sources



The percentage of households using unsafe water sources for drinking is low (less than 3% and less than 5% urban and rural areas respectively). The majority of dug well are not deep enough and/or poorly constructed. Thus, the yields are low. This means that there may be not enough water in the wells to satisfy the basic needs of all the population.

There are still some households using water delivered from cart (5.3%) and tanker truck (4.4%) which is classified unsafe as the original source could not be established though according to the community's member most were from high-yielding boreholes. Although we didn't specifically assess the wealth of the household to determine how many liters they can afford daily, vendors purchase the water at 200 AFN per 2000L from the borehole and resell it at 400-500 AFN per 2000L depending to the distance from point of purchase to the delivery point.

Figure 10: Unsafe water sources

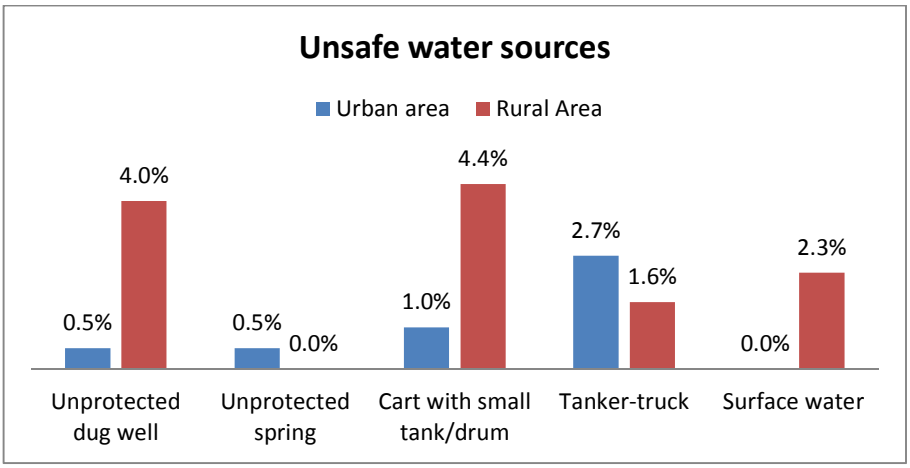
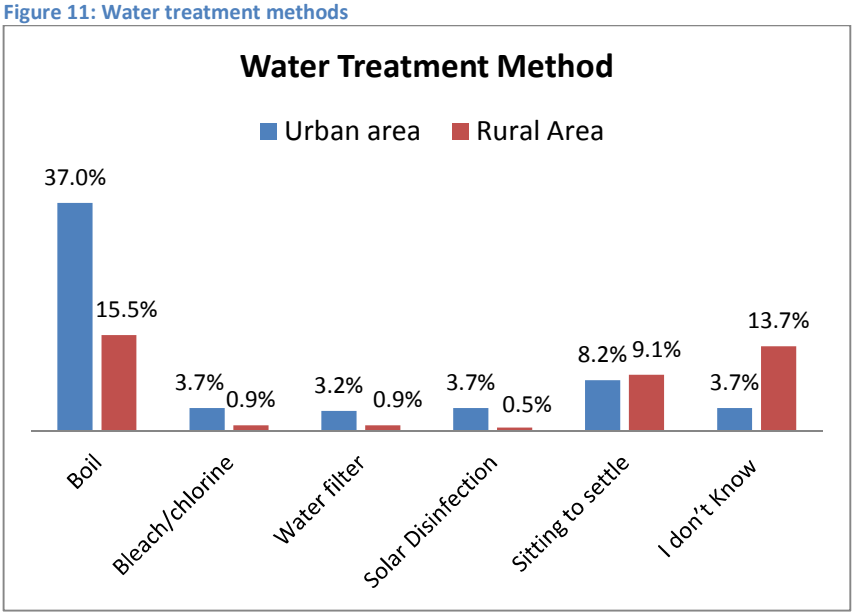


Figure 11: Water treatment methods



Sanitation facilities

Definitions of the use of improved sanitation were based on those of the Joint Monitoring Program--JMP (WHO & UNICEF 2013b) to classify the sanitation facilities used a community level.
The survey showed that overall 34.6% of the interviewed households in urban areas and 13% in rural areas have access to an improved sanitation facility latrine. 12.4% and 39.1% overall in rural and urban areas respectively utilize unimproved sanitation facilities. (See Figures 12 & 13)

Figure 12: Improved sanitation facilities

Urban area Rural area

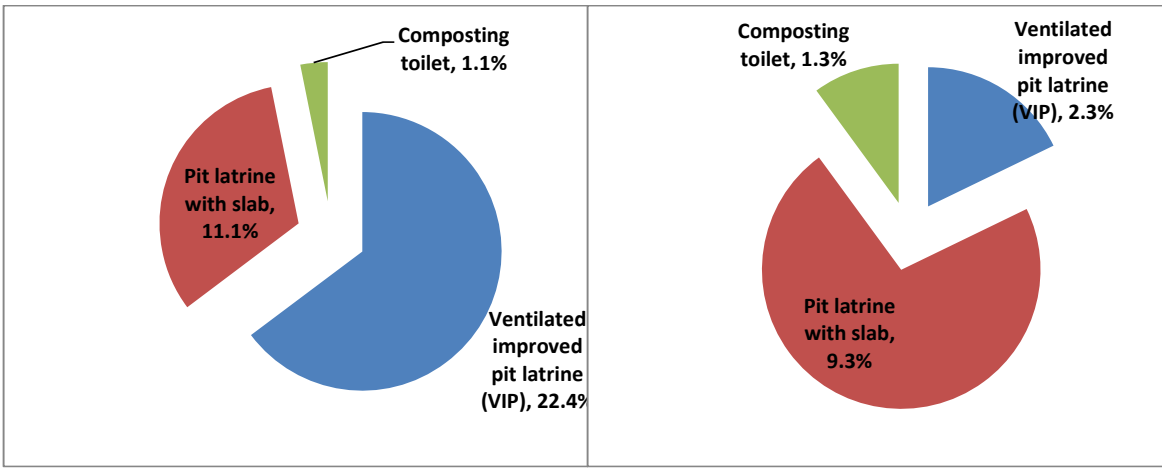
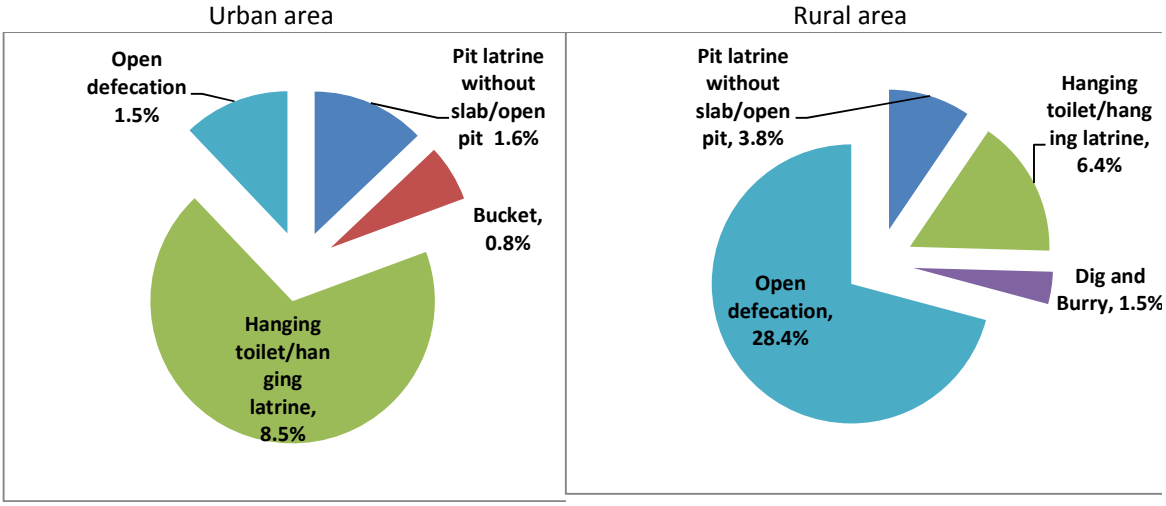


Figure 13: Unimproved sanitation facilities



5.8. Demographics

Demography

The mean number of people in the household was 11.9 in the urban area and 6.7 in the rural districts. Many respondents were reluctant to reveal their family structure (monogamy or polygamy). The three major occupations of the head of households are for the urban area: Daily labor/Wage labor (38%.); salaried (24.8%) and Small business/Petty trade (15%). For the rural districts: Farmer/own farm labor (37%); Daily labor/Wage labor (35%) and Firewood/charcoal harvest (10%).

Structure and type of household

Table 35: Structure and type of households

Head of HH (n=877)	Urban areas		Rural areas		Total	
	N	%	N	%	N	%
Husband	264	94%	310	93%	574	93.5%
Wife	4	1%	2	1%	6	1%
Others	14	5%	20	6%	34	6.5%
Total	282		332		614	

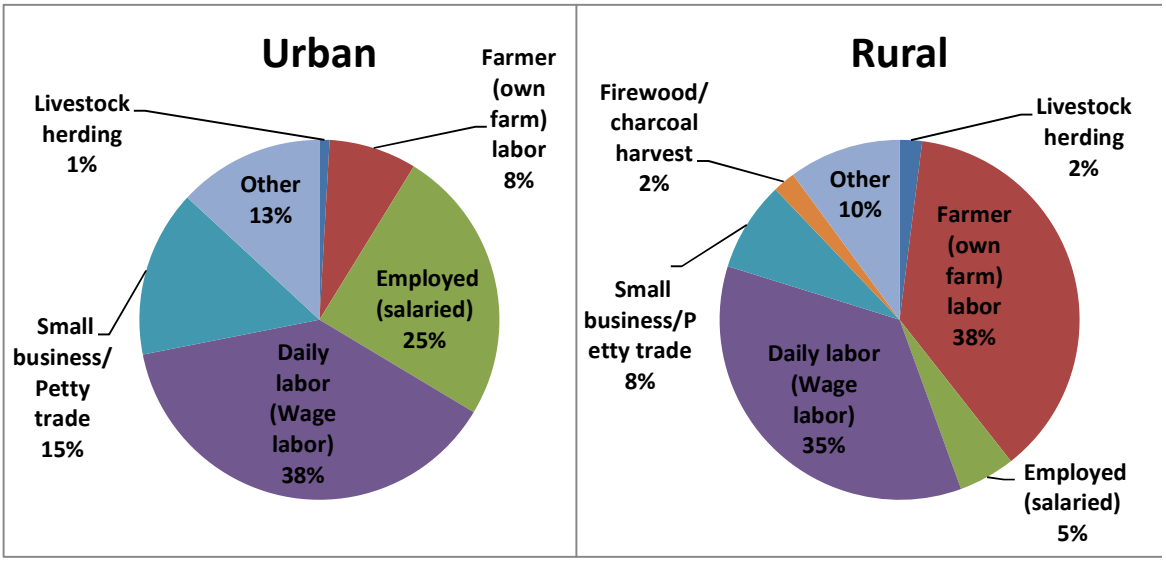
Table 36: Type of family

Family type (n=28)	Urban areas	Rural areas	Total
Monogamous	1	1	2
Polygamous	13	9	21
Single Parent	3	2	5
Total	17	12	28

Main livelihoods

The main livelihoods were defined as those of the family heads. Livestock herding was reported at 2%. See **figure 14** below.

Figure 14: Main livelihoods, (n= 506)



6. DISCUSSION AND RECOMMENDATIONS

Nutritional Status

- ***Global Acute Malnutrition measurements by WHZ and/or by MUAC***

In Afghanistan, the Nutrition Cluster has concluded after many SMART surveys that GAM rates in Afghanistan by MUAC is always higher than the standard global measurement by WHZ, a complete opposite of what has been the experience internationally—especially in pastoralist societies. However, decision making for funding of emergency nutrition intervention has usually been based on the WHO thresholds which uses the global GAM definition based on SAM and MAM by WHZ cut-off. Most recently there has been a push by the Afghanistan cluster towards examining the hypothesis that WHZ and MUAC do diagnose different children as put forward by Grellety and Golden (2016) in a 6 multi-country study and to calculate a single GAM rates by combining both WHZ and MUAC GAM rates. The MUAC measurement is more closely associated with mortality risk than WHZ.

- GAM Prevalence based on Weight-for-Height/ and or the presence of bilateral oedema was 7.7 % (5.9 - 10.0 95% C.I.) and SAM 1.1 % (0.6 - 1.9 95% C.I.).
- GAM prevalence based on MUAC/ and or the presence of bilateral oedema 12.1 % (8.9 - 16.2 95% C.I.) and SAM 3.8 % (2.3 - 6.2 95% C.I.).

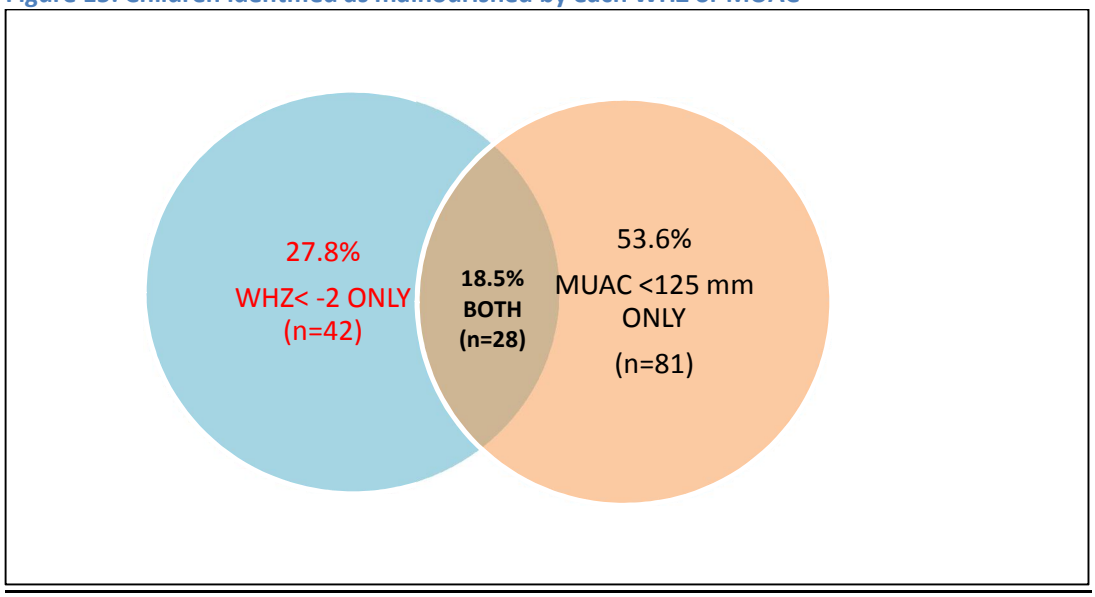
By combining both GAM by WHZ and MUAC for determining a single rate that better reflects the overall situation of acute malnutrition among 6-59 months old children in the surveyed area.

- Total GAM (Weight-for-Height Z-score <-2 Z score and/ or MUAC <-125 mm and / or the presence of bilateral oedema) was 16.4% (14.3 – 19.2, 95% CI) and SAM 4.7% (3.3 – 6.0, 95% CI).

The diagram on the Figure 15 below shows the number of children identified as malnourished by each method (WHZ or MUAC) separately or together. Both criteria diagnosed only 18.5% of children; therefore, if GAM rates by WHZ cut-off was to be used as the sole criteria for funding or admission decision this will mean the decision will only be based on just 46.3% of eligible children (27.8% + 18.5%) identified by the survey. In the other hand if MUAC cut-off was used, the decision will only be based on 72.1% (53.6% + 18.5%) of eligible children.

[6] Grellety and Golden. 2016.Weight-for-height and mid-upper-arm circumference should be used independently to diagnose acute malnutrition: policy implications. BMC Nutrition BMC series – open, inclusive and trusted 2016 **2**:10

Figure 15: Children identified as malnourished by each WHZ or MUAC



This data supports the hypothesis that using MUAC measurements as sole admission criteria due to its better correlation with mortality in most community based screening of 6-59 months old children is not ideal even though high proportion of acutely malnourished children will be identified as it will miss many children defined as acutely malnourished by WHZ alone. We recommend that wherever possible at facility level (fixed and mobile), both WHZ and MUAC be used for admission. Children referred to the facility by the community active case finding teams should have their nutrition status confirmed by one of the methods and if the child does not meet the admission criteria by MUAC, then the same child should be measured using WHZ.

Combined GAM rates (16.4%) are high demonstrating that the project area surveyed is in need for continued and expanded IMAM services. But also, the trends of chronic malnutrition in surveyed districts remain worrying. Based on WHO classification of severity of malnutrition, the overall prevalence of stunting was high 58.8% (up from 43% in the prior 2015 SMART survey) and of underweight 30.2%. Addressing the underlying causes of chronic malnutrition should be explored and advocated for with multisectoral interventions prioritized where possible.

- ***Comparing the current survey results with the 2015 survey.***

ACF with Medair support conducted a SMART survey covering the same areas as the current survey from August 17th, 2015 to August 27th, 2015. The Global Acute Malnutrition rates identified by WFH <-2 Z score (WHO) 2006 of 9.8 % (95 % CI: 7.6-12.6) were found to be poor as per WHO classification and MUAC <125 mm was 11.4% (95 % CI: 9.2-14.1).
Table 37 shows the calculation and test of the Null hypothesis according to which there should be no difference for the prevalence of GAM between the two surveys (p1=p2).

Table 37. Statistical Calculator: Two Surveys (2015 vs 2016) comparison

Null Hypothesis p1=p2

Design Effect Known

Survey 1 (ACF-Medair 2015)

Total Sample Size	Prevalence	Design Effect	Number of Clusters	Estimated Variance	
n1	p1	Deff1	C1	$s1^2$	se
1111	9.80%	1.91	47	0.000152	0.0123275

Survey 2 (Medair 2016)

Total Sample Size	Prevalence	Design Effect	Number of Clusters	Estimated Variance	
n2	p2	Deff2	C2	$s2^2$	se
901	7.70%	1.30	50	0.000103	0.0101264

p1-p2	Pooled Variance	t	p	DF	2 sided	1 sided
2.10%	1.60%	1.32	0.1912	95	80.9%	90.4%

The test for the Null hypothesis shows the difference between the two GAM prevalence estimates is 2.10% (p1-p2), however the test of significance gives a p-value of 0.1912 which is less than 0.05. p>0.05, the null hypothesis is therefore accepted. We are 80.9% sure that **there is no significant difference between prevalence estimate of the 2015 survey and prevalence estimate of the current 2016 survey.**

- ***Maternal nutritional status***

Afghanistan National Guideline recommends MUAC cutoff of 230 mm identifying nutrition status for women of reproductive age. Internationally 210 mm or 230 mm are used depending on national guidelines. The current survey shows that overall 17.3% of women of reproductive age have MUAC <230 mm—similar to the 2015 survey with 16.4% of women of reproductive age with MUACs <230 mm.

- 30.3% with MUAC <230 mm among women who are both pregnant and lactating
- 22.4% with MUAC <230 mm among those who are pregnant but not lactating

These are very high percentages of mothers and would be mothers at risk for acute malnutrition and increasing future risk for their children. There is a real urgent need for addressing the malnutrition among women of reproductive age. At present Medair has not been able to roll out services for PLWs due to the lack of availability of nutritional supplies. Addressing acute malnutrition among

PLWs will normally require an agreement with WFP to provide the necessary food supplies due to the limited availability of funds for implementers to purchase their own supplies. In the past 3 years, it wasn't a WFP priority to provide supplies to non-BPHS implementers. However, most recently Medair and WFP have been developing a Field Level Agreement (FLA) which will include supplies for PLWs. Hopefully later in 2017 food supplies will be available and Medair can start treating this vulnerable group.

- ***Immunization***

In Sphere's Minimum standards for health action section, "Essential health services – child health standard 1: Prevention of vaccine-preventable diseases" the recommended measles coverage is ≥90 per cent of children aged 9 months to 5 years. The guideline says," If measles vaccination coverage is <90 per cent, unknown or doubts remain regarding the coverage estimates, the campaign should be carried out on the assumption that the coverage is inadequate to prevent outbreaks"[7]. With just over 55% and 74% coverage in the rural and urban areas respectively as the current survey revealed, the project area is still far below the recommended coverage for measles vaccination.
Though Medair is not directly providing EPI services, it is recommended that Medair keep referring all children they see without full immunization at the mobile nutrition treatment sites to the DoPH health teams and advocate for increased efforts for more immunization campaigns particularly in the rural districts to improve coverage rates.

- ***Infant and young child feeding practices***

The proportion of children reportedly exclusively breastfed is very low though higher than the 2015 survey reported (34% overall in 2015 vs 51.4% in urban and 40.4% rural areas in 2016). The increase from 34% to 45.9% overall is most likely due to the IYCF messaging Medair has been carrying out through the Nutrition Extension Workers during community active case finding activities; through our clinic staff on mobile clinic days and in additionally in the case of Kandahar city through the implementation of mothers' and fathers' Care Groups. Medair should consider as funding permits expanding the Care Group model to cover the rural sites as well.
Despite the significant improvement in prevalence of exclusive breastfeeding, minimum dietary diversity is extremely low (1.5%) in both urban and rural areas. It is recommended that Medair reviews the BCC/Care Group messaging content and delivery approach with regard to the critical importance of dietary diversification as part of young child feeding.

In summary, this SMART survey clearly delineates the need for continued multisectoral interventions in the areas of Kandahar surveyed—with the situation overall worse in the rural vs. urban areas. With persistently high levels of GAM in children U5 and vulnerable women of childbearing age, expanded IMAM services are needed. In addition, multisectoral preventive behaviors underlying both chronic and acute malnutrition could be strengthened in both rural and urban areas. With a persistently high two-week retrospective common disease prevalence in children under five at 45.9% in urban areas and 48% in rural, combined with low and slow care seeing from caregivers more should be promoted in this area. In addition, preventive practices such as immunization, vitamin A coverage, deworming, appropriate handwashing, exclusive breastfeeding and other IYCF practices need to be further promoted and practiced in order to address many of the underlying and contributing factors of malnutrition such as illness. Although a significant improvement was seen in just one year for exclusive breastfeeding, this improvement needs to be expanded to other critical preventive behaviors and requires a multisectoral response.

[7] http://www.spherehandbook.org/en/essential-health-services-child-health-standard-1-prevention-of-vaccine-preventable-diseases/

7. ANNEXES

Annex 1: Plausibility checks

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

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data (% of out of range subjects)	Incl	%	0-2.5 0	>2.5-5.0 5	>5.0-7.5 10	>7.5 20	**0** (0.2 %)
Overall Sex ratio (Significant chi square)	Incl	p	>0.1 0	>0.05 2	>0.001 4	<=0.001 10	**4** (p=0.026)
Age ratio(6-29 vs 30-59) (Significant chi square)	Incl	p	>0.1 0	>0.05 2	>0.001 4	<=0.001 10	**4** (p=0.003)
Dig pref score - weight	Incl	#	0-7 0	8-12 2	13-20 4	> 20 10	**0** (6)
Dig pref score - height	Incl	#	0-7 0	8-12 2	13-20 4	> 20 10	**4** (15)
Dig pref score - MUAC	Incl	#	0-7 0	8-12 2	13-20 4	> 20 10	**2** (9)
Standard Dev WHZ . .	Excl Excl	SD SD	<1.1 and >0.9 0	<1.15 and >0.85 5	<1.20 and >0.80 10	>=1.20 or <=0.80 20	**5** (1.12)
Skewness WHZ	Excl	#	<±0.2 0	<±0.4 1	<±0.6 3	>=±0.6 5	**0** (-0.06)
Kurtosis WHZ	Excl	#	<±0.2 0	<±0.4 1	<±0.6 3	>=±0.6 5	**0** (-0.15)
Poisson dist WHZ-2	Excl	p	>0.05 0	>0.01 1	>0.001 3	<=0.001 5	**1** (p=0.049)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**20** %

The overall score of this survey is 20 %, this is acceptable.

There were no duplicate entries detected.

Percentage of children with no exact birthday: 37 %

Anthropometric Indices likely to be in error (-3 to 3 for WHZ, -3 to 3 for HAZ, -3 to 3 for WAZ, from observed mean - chosen in Options panel - these values will be flagged and should be excluded from analysis for a nutrition survey in emergencies. For other surveys this might not be the best procedure e.g. when the percentage of overweight

children has to be calculated):

Line=200/ID=249: **WHZ (-4.610)**, HAZ (-7.820), WAZ (-6.870)
Line=641/ID=437: **WHZ (5.662)**, WAZ (2.855), Weight may be incorrect
Line=672/ID=333: WAZ (-4.514), Age may be incorrect

Percentage of values flagged with SMART flags:WHZ: 0.2 %, HAZ: 0.1 %, WAZ: 0.3 %

Age distribution:

Month 6 : ####
Month 7 : #########
Month 8 : #########
Month 9 : ###############
Month 10 : ########
Month 11 : ############
Month 12 : ################
Month 13 : ########
Month 14 : ############
Month 15 : ######
Month 16 : ######
Month 17 : ######
Month 18 : ####################
Month 19 : ########
Month 20 : ######
Month 21 : ####
Month 22 : ######
Month 23 : #########
Month 24 : ############################
Month 25 : ################
Month 26 : #####
Month 27 : #######
Month 28 : ######
Month 29 : ####
Month 30 : ########
Month 31 : ##
Month 32 : ###
Month 33 : ####
Month 34 : ##
Month 35 : ####
Month 36 : ##
Month 37 : ################
Month 38 : ########
Month 39 : ########
Month 40 : #######
Month 41 : ######
Month 42 : ######
Month 43 : ####
Month 44 : ####

Month 45 : #####
Month 46 : #
Month 47 : ######
Month 48 : ##
Month 49 : ##########
Month 50 : #######
Month 51 : ####
Month 52 : #####
Month 53 : #
Month 54 : ######
Month 55 : ####
Month 56 : #####
Month 57 : ##
Month 58 : ####
Month 59 : ####

Age ratio of 6-29 months to 30-59 months: 1.04 (The value should be around 0.85).: p-value = 0.003 (significant difference)

Statistical evaluation of sex and age ratios (using Chi squared statistic):

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	114/112.3 (1.0)	109/96.8 (1.1)	223/209.0 (1.1)	1.05
18 to 29	12	117/109.5 (1.1)	119/94.3 (1.3)	236/203.8 (1.2)	0.98
30 to 41	12	123/106.1 (1.2)	93/91.4 (1.0)	216/197.6 (1.1)	1.32
42 to 53	12	105/104.4 (1.0)	81/90.0 (0.9)	186/194.4 (1.0)	1.30
54 to 59	6	25/51.7 (0.5)	15/44.5 (0.3)	40/96.2 (0.4)	1.67
6 to 59	54	484/450.5 (1.1)	417/450.5 (0.9)		1.16

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.026 (significant excess of boys)
Overall age distribution: p-value = 0.000 (significant difference)
Overall age distribution for boys: p-value = 0.002 (significant difference)
Overall age distribution for girls: p-value = 0.000 (significant difference)
Overall sex/age distribution: p-value = 0.000 (significant difference)

Digit preference Weight:

Digit .0 : ##
Digit .1 : ##
Digit .2 : ######################################
Digit .3 : ##
Digit .4 : ##
Digit .5 : ##
Digit .6 : ##
Digit .7 : ######################################
Digit .8 : ##
Digit .9 : ############################

Digit preference score: **6** (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.001 (significant difference)

Digit preference Height:

Digit .0 : ##
Digit .1 : ############################
Digit .2 : ##
Digit .3 : ###################################
Digit .4 : ########################
Digit .5 : ##
Digit .6 : ##################
Digit .7 : ###############
Digit .8 : #############
Digit .9 : ##################

Digit preference score: **15** (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.000 (significant difference)

Digit preference MUAC:

Digit .0 : ######################################
Digit .1 : ##############################
Digit .2 : ###############################
Digit .3 : ############################
Digit .4 : ##################
Digit .5 : ##
Digit .6 : ##############################
Digit .7 : ########################
Digit .8 : ############################
Digit .9 : ######################

Digit preference score: **9** (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.000 (significant difference)

Evaluation of Standard deviation, Normal distribution, Skewness and Kurtosis using the 3 exclusion (Flag) procedures

.	no exclusion	exclusion from reference mean (WHO flags)	exclusion from observed mean (SMART flags)
WHZ			
Standard Deviation SD:	1.15	1.13	1.12
(The SD should be between 0.8 and 1.2)			
Prevalence (< -2)			
observed:	7.8%	7.8%	7.7%
calculated with current SD:	6.7%	6.5%	6.3%
calculated with a SD of 1:	4.3%	4.3%	4.3%
HAZ			
Standard Deviation SD:	1.30	1.29	1.29
(The SD should be between 0.8 and 1.2)			

Prevalence (< -2)
observed: 58.8% 58.8% 58.8%
calculated with current SD: 57.9% 57.8% 57.8%
calculated with a SD of 1: 60.2% 60.0% 60.0%

WAZ
Standard Deviation SD: 1.08 1.06 1.05
(The SD should be between 0.8 and 1.2)
Prevalence (< -2)
observed: 30.3% 30.2% 30.2%
calculated with current SD: 30.9% 30.5% 30.3%
calculated with a SD of 1: 29.6% 29.4% 29.4%

Results for Shapiro-Wilk test for normally (Gaussian) distributed data:
WHZ p= 0.003 p= 0.113 p= 0.062
HAZ p= 0.000 p= 0.000 p= 0.000
WAZ p= 0.001 p= 0.015 p= 0.002
(If p < 0.05 then the data are not normally distributed. If p > 0.05 you can consider the data normally distributed)

Skewness
WHZ 0.03 -0.11 -0.06
HAZ -0.02 0.06 0.06
WAZ -0.13 0.00 -0.05
If the value is:
-below minus 0.4 there is a relative excess of wasted/stunted/underweight subjects in the sample
-between minus 0.4 and minus 0.2, there may be a relative excess of wasted/stunted/underweight subjects in the sample.
-between minus 0.2 and plus 0.2, the distribution can be considered as symmetrical.
-between 0.2 and 0.4, there may be an excess of obese/tall/overweight subjects in the sample.
-above 0.4, there is an excess of obese/tall/overweight subjects in the sample

Kurtosis
WHZ 0.63 0.00 -0.15
HAZ -0.25 -0.53 -0.53
WAZ 0.31 -0.26 -0.51
Kurtosis characterizes the relative size of the body versus the tails of the distribution. Positive kurtosis indicates relatively large tails and small body. Negative kurtosis indicates relatively large body and small tails.
If the absolute value is:
-above 0.4 it indicates a problem. There might have been a problem with data collection or sampling.
-between 0.2 and 0.4, the data may be affected with a problem.
-less than an absolute value of 0.2 the distribution can be considered as normal.

Test if cases are randomly distributed or aggregated over the clusters by calculation of the Index of Dispersion (ID) and comparison with the Poisson distribution for:

WHZ < -2: ID=1.36 (p=0.049)
WHZ < -3: ID=0.82 (p=0.817)
GAM: ID=1.36 (p=0.049)
SAM: ID=0.82 (p=0.817)
HAZ < -2: ID=1.37 (p=0.042)
HAZ < -3: ID=1.83 (p=0.000)
WAZ < -2: ID=2.04 (p=0.000)
WAZ < -3: ID=1.72 (p=0.001)

Subjects with SMART flags are excluded from this analysis.

The Index of Dispersion (ID) indicates the degree to which the cases are aggregated into certain clusters (the degree to which there are "pockets"). If the ID is less than 1 and $p > 0.95$ it indicates that the cases are UNIFORMLY distributed among the clusters. If the p value is between 0.05 and 0.95 the cases appear to be randomly distributed among the clusters, if ID is higher than 1 and p is less than 0.05 the cases are aggregated into certain cluster (there

appear to be pockets of cases). If this is the case for Oedema but not for WHZ then aggregation of GAM and SAM cases is likely due to inclusion of oedematous cases in GAM and SAM estimates.

Are the data of the same quality at the beginning and the end of the clusters?
Evaluation of the SD for WHZ depending upon the order the cases are measured within each cluster (if one cluster per day is measured then this will be related to the time of the day the measurement is made).

```
Time                                                SD for WHZ
point                0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.92 (n=50, f=0)  #####
02: 1.27 (n=50, f=0)  ####################
03: 1.18 (n=50, f=0)  ################
04: 1.14 (n=50, f=0)  ##############
05: 1.11 (n=50, f=0)  #############
06: 1.16 (n=50, f=1)  ################
07: 1.16 (n=50, f=0)  ################
08: 1.14 (n=50, f=0)  ##############
09: 0.97 (n=50, f=0)  #######
10: 1.26 (n=50, f=0)  ##################
11: 0.98 (n=49, f=0)  ########
12: 1.12 (n=47, f=0)  #############
13: 1.02 (n=46, f=0)  #########
14: 1.17 (n=41, f=0)  ################
15: 1.16 (n=37, f=0)  ################
16: 1.11 (n=34, f=0)  #############
17: 1.20 (n=31, f=0)  ################
18: 1.95 (n=23, f=1)  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
19: 1.00 (n=21, f=0)  OOOOOOOO
20: 1.60 (n=16, f=0)  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
21: 1.16 (n=14, f=0)  OOOOOOOOOOOOOO
22: 0.54 (n=11, f=0)
23: 0.61 (n=10, f=0)
24: 1.62 (n=07, f=0)  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
25: 0.69 (n=05, f=0)
26: 0.38 (n=02, f=0)
27: 1.83 (n=02, f=0)  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
28: 0.49 (n=02, f=0)

(when n is much less than the average number of subjects per cluster different symbols are
used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags
found in the different time points)
```

Analysis by Team

Team	**1**	**10**	**16**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**999**
n =	93	98	1	98	120	94	81	70	81	91	71	3
Percentage of values flagged with SMART flags:												
WHZ:	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	1.4	0.0
HAZ:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
WAZ:	0.0	0.0	0.0	0.0	0.0	1.1	1.2	0.0	0.0	0.0	1.4	0.0
Age ratio of 6-29 months to 30-59 months:												
	0.98	1.04	0.00	1.18	1.00	0.84	0.76	0.94	1.70	1.33		

0.82

Sex ratio (male/female):

1.16 1.18 0.00 1.09 1.35 1.00 0.88 1.26 0.84 1.46 1.63 2.00

Digit preference Weight (%):

.0 :	24	8	0	14	14	9	11	6	12	14	10
.1 :	11	16	100	8	8	12	15	10	7	7	11
.2 :	11	2	0	7	7	11	7	17	15	3	7
.3 :	11	11	0	8	12	12	11	9	9	16	10
.4 :	8	8	0	16	14	13	12	7	11	4	10
.5 :	10	16	0	13	12	14	16	13	7	10	11
.6 :	5	12	0	9	13	9	7	14	12	13	14
.7 :	8	9	0	8	6	12	7	9	7	11	4
.8 :	10	12	0	9	9	10	11	7	9	11	8
.9 :	4	4	0	6	7	1	1	9	10	10	14
DPS:	17	15	100	11	10	11	14	11	8	13	9

Digit preference score (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)

Digit preference Height (%):

.0 :	45	10	0	4	3	6	5	40	6	12	35
.1 :	8	9	0	9	14	3	14	4	7	10	10
.2 :	8	24	100	20	13	18	16	13	15	19	4
.3 :	8	23	0	7	14	11	14	6	16	9	10
.4 :	1	4	0	5	13	12	10	6	12	8	8
.5 :	6	15	0	28	18	23	14	10	27	27	6
.6 :	5	6	0	7	5	3	11	7	7	5	8
.7 :	8	4	0	3	5	4	6	3	6	4	6
.8 :	10	1	0	7	6	5	6	4	1	1	6
.9 :	2	2	0	9	9	14	5	7	1	4	7
DPS:	40	27	100	25	17	22	13	35	25	25	29

71

Digit preference score (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)

Digit preference MUAC (%):

.0 :	29	17	0	3	6	5	2	27	4	29	13
67											
.1 :	8	2	0	12	10	7	19	6	11	8	17
0											
.2 :	11	7	0	17	7	11	10	9	15	5	13
0											
.3 :	10	8	0	9	11	15	10	7	10	3	4
0											
.4 :	10	3	0	4	8	4	7	3	10	5	8
0											
.5 :	5	36	0	6	21	19	14	11	14	23	14
0											
.6 :	5	14	0	14	8	4	9	4	10	15	13
33											
.7 :	8	4	100	6	8	6	10	20	15	3	7
0											
.8 :	3	4	0	16	12	13	12	10	11	3	7
0											
.9 :	12	4	0	11	10	15	7	3	1	4	4
0											
DPS:	23	33	100	16	13	17	13	25	14	29	14
71											

Digit preference score (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)

Standard deviation of WHZ:

SD	1.09	1.08	0.00	1.16	1.08	1.20	1.26	1.10	0.95	1.01
1.34										
Prevalence (< -2) observed:										
%	6.5	3.1		6.1	10.0	5.3	16.0	2.9		9.9
16.9										
Prevalence (< -2) calculated with current SD:										
%	3.4	3.9		5.0	6.7	5.1	12.9	3.3		10.0
14.9										
Prevalence (< -2) calculated with a SD of 1:										
%	2.3	2.9		2.8	5.2	2.5	7.8	2.1		9.8
8.2										

Standard deviation of HAZ:

SD	1.22	1.13	0.00	1.43	1.26	1.05	1.48	1.53	1.21	1.23
1.51										
observed:										
%	54.8	60.2		54.1	54.2	60.6	66.7	62.9	51.9	67.0
59.2										
calculated with current SD:										
%	54.8	59.7		57.6	56.4	56.4	63.0	60.0	48.6	62.9
58.3										
calculated with a SD of 1:										
%	55.9	61.0		60.8	58.0	56.8	68.9	65.1	48.3	65.7
62.4										

Statistical evaluation of sex and age ratios (using Chi squared statistic) for:

Team 1:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	9/11.6 (0.8)	14/10.0 (1.4)	23/21.6 (1.1)	0.64
18 to 29	12	16/11.3 (1.4)	7/9.7 (0.7)	23/21.0 (1.1)	2.29
30 to 41	12	13/11.0 (1.2)	13/9.4 (1.4)	26/20.4 (1.3)	1.00
42 to 53	12	10/10.8 (0.9)	6/9.3 (0.6)	16/20.1 (0.8)	1.67
54 to 59	6	2/5.3 (0.4)	3/4.6 (0.7)	5/9.9 (0.5)	0.67
6 to 59	54	50/46.5 (1.1)	43/46.5 (0.9)		1.16

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.468 (boys and girls equally represented)
Overall age distribution: p-value = 0.278 (as expected)
Overall age distribution for boys: p-value = 0.282 (as expected)
Overall age distribution for girls: p-value = 0.244 (as expected)
Overall sex/age distribution: p-value = 0.027 (significant difference)

Team 2:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	13/12.3 (1.1)	10/10.4 (1.0)	23/22.7 (1.0)	1.30
18 to 29	12	14/12.0 (1.2)	13/10.2 (1.3)	27/22.2 (1.2)	1.08
30 to 41	12	12/11.6 (1.0)	11/9.9 (1.1)	23/21.5 (1.1)	1.09
42 to 53	12	12/11.4 (1.0)	9/9.7 (0.9)	21/21.1 (1.0)	1.33
54 to 59	6	2/5.7 (0.4)	2/4.8 (0.4)	4/10.5 (0.4)	1.00
6 to 59	54	53/49.0 (1.1)	45/49.0 (0.9)		1.18

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.419 (boys and girls equally represented)
Overall age distribution: p-value = 0.272 (as expected)
Overall age distribution for boys: p-value = 0.595 (as expected)
Overall age distribution for girls: p-value = 0.624 (as expected)
Overall sex/age distribution: p-value = 0.194 (as expected)

Team 3:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	0/0.0	0/0.2 (0.0)	0/0.2 (0.0)	
18 to 29	12	0/0.0	0/0.2 (0.0)	0/0.2 (0.0)	
30 to 41	12	0/0.0	0/0.2 (0.0)	0/0.2 (0.0)	
42 to 53	12	0/0.0	1/0.2 (4.6)	1/0.2 (4.6)	0.00
54 to 59	6	0/0.0	0/0.1 (0.0)	0/0.1 (0.0)	
6 to 59	54	0/0.5 (0.0)	1/0.5 (2.0)		0.00

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.317 (boys and girls equally represented)
Overall age distribution: p-value = 0.458 (as expected)
Overall age distribution for girls: p-value = 0.458 (as expected)

Overall sex/age distribution: p-value = 0.082 (as expected)

Team 4:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	11/11.8 (0.9)	15/10.9 (1.4)	26/22.7 (1.1)	0.73
18 to 29	12	12/11.5 (1.0)	15/10.6 (1.4)	27/22.2 (1.2)	0.80
30 to 41	12	12/11.2 (1.1)	9/10.3 (0.9)	21/21.5 (1.0)	1.33
42 to 53	12	13/11.0 (1.2)	8/10.1 (0.8)	21/21.1 (1.0)	1.63
54 to 59	6	3/5.4 (0.6)	0/5.0 (0.0)	3/10.5 (0.3)	
6 to 59	54	51/49.0 (1.0)	47/49.0 (1.0)		1.09

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.686 (boys and girls equally represented)
Overall age distribution: p-value = 0.144 (as expected)
Overall age distribution for boys: p-value = 0.810 (as expected)
Overall age distribution for girls: p-value = 0.062 (as expected)
Overall sex/age distribution: p-value = 0.034 (significant difference)

Team 5:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	18/16.0 (1.1)	11/11.8 (0.9)	29/27.8 (1.0)	1.64
18 to 29	12	16/15.6 (1.0)	15/11.5 (1.3)	31/27.1 (1.1)	1.07
30 to 41	12	15/15.1 (1.0)	13/11.2 (1.2)	28/26.3 (1.1)	1.15
42 to 53	12	13/14.9 (0.9)	9/11.0 (0.8)	22/25.9 (0.8)	1.44
54 to 59	6	7/7.4 (1.0)	3/5.4 (0.6)	10/12.8 (0.8)	2.33
6 to 59	54	69/60.0 (1.1)	51/60.0 (0.9)		1.35

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.100 (boys and girls equally represented)
Overall age distribution: p-value = 0.753 (as expected)
Overall age distribution for boys: p-value = 0.972 (as expected)
Overall age distribution for girls: p-value = 0.582 (as expected)
Overall sex/age distribution: p-value = 0.221 (as expected)

Team 6:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	8/10.9 (0.7)	11/10.9 (1.0)	19/21.8 (0.9)	0.73
18 to 29	12	8/10.6 (0.8)	16/10.6 (1.5)	24/21.3 (1.1)	0.50
30 to 41	12	12/10.3 (1.2)	7/10.3 (0.7)	19/20.6 (0.9)	1.71
42 to 53	12	14/10.1 (1.4)	11/10.1 (1.1)	25/20.3 (1.2)	1.27
54 to 59	6	5/5.0 (1.0)	2/5.0 (0.4)	7/10.0 (0.7)	2.50
6 to 59	54	47/47.0 (1.0)	47/47.0 (1.0)		1.00

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 1.000 (boys and girls equally represented)
Overall age distribution: p-value = 0.583 (as expected)
Overall age distribution for boys: p-value = 0.529 (as expected)
Overall age distribution for girls: p-value = 0.226 (as expected)

Overall sex/age distribution: p-value = 0.066 (as expected)

Team 7:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	9/8.8 (1.0)	8/10.0 (0.8)	17/18.8 (0.9)	1.13
18 to 29	12	5/8.6 (0.6)	13/9.7 (1.3)	18/18.3 (1.0)	0.38
30 to 41	12	14/8.3 (1.7)	10/9.4 (1.1)	24/17.8 (1.4)	1.40
42 to 53	12	9/8.2 (1.1)	10/9.3 (1.1)	19/17.5 (1.1)	0.90
54 to 59	6	1/4.1 (0.2)	2/4.6 (0.4)	3/8.6 (0.3)	0.50
6 to 59	54	38/40.5 (0.9)	43/40.5 (1.1)		0.88

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.579 (boys and girls equally represented)
Overall age distribution: p-value = 0.186 (as expected)
Overall age distribution for boys: p-value = 0.101 (as expected)
Overall age distribution for girls: p-value = 0.550 (as expected)
Overall sex/age distribution: p-value = 0.029 (significant difference)

Team 8:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	7/9.0 (0.8)	7/7.2 (1.0)	14/16.2 (0.9)	1.00
18 to 29	12	13/8.8 (1.5)	7/7.0 (1.0)	20/15.8 (1.3)	1.86
30 to 41	12	8/8.6 (0.9)	7/6.8 (1.0)	15/15.3 (1.0)	1.14
42 to 53	12	7/8.4 (0.8)	7/6.7 (1.0)	14/15.1 (0.9)	1.00
54 to 59	6	4/4.2 (1.0)	3/3.3 (0.9)	7/7.5 (0.9)	1.33
6 to 59	54	39/35.0 (1.1)	31/35.0 (0.9)		1.26

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.339 (boys and girls equally represented)
Overall age distribution: p-value = 0.823 (as expected)
Overall age distribution for boys: p-value = 0.605 (as expected)
Overall age distribution for girls: p-value = 1.000 (as expected)
Overall sex/age distribution: p-value = 0.407 (as expected)

Team 9:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	11/8.6 (1.3)	16/10.2 (1.6)	27/18.8 (1.4)	0.69
18 to 29	12	13/8.4 (1.6)	11/10.0 (1.1)	24/18.3 (1.3)	1.18
30 to 41	12	9/8.1 (1.1)	9/9.6 (0.9)	18/17.8 (1.0)	1.00
42 to 53	12	4/8.0 (0.5)	8/9.5 (0.8)	12/17.5 (0.7)	0.50
54 to 59	6	0/3.9 (0.0)	0/4.7 (0.0)	0/8.6 (0.0)	
6 to 59	54	37/40.5 (0.9)	44/40.5 (1.1)		0.84

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.437 (boys and girls equally represented)
Overall age distribution: p-value = 0.003 (significant difference)
Overall age distribution for boys: p-value = 0.055 (as expected)

Overall age distribution for girls: p-value = 0.079 (as expected)
Overall sex/age distribution: p-value = 0.001 (significant difference)

Team 10:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	20/12.5 (1.6)	11/8.6 (1.3)	31/21.1 (1.5)	1.82
18 to 29	12	11/12.2 (0.9)	10/8.4 (1.2)	21/20.6 (1.0)	1.10
30 to 41	12	12/11.8 (1.0)	7/8.1 (0.9)	19/20.0 (1.0)	1.71
42 to 53	12	10/11.7 (0.9)	9/8.0 (1.1)	19/19.6 (1.0)	1.11
54 to 59	6	1/5.8 (0.2)	0/3.9 (0.0)	1/9.7 (0.1)	
6 to 59	54	54/45.5 (1.2)	37/45.5 (0.8)		1.46

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.075 (boys and girls equally represented)
Overall age distribution: p-value = 0.014 (significant difference)
Overall age distribution for boys: p-value = 0.068 (as expected)
Overall age distribution for girls: p-value = 0.265 (as expected)
Overall sex/age distribution: p-value = 0.001 (significant difference)

Team 11:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	8/10.2 (0.8)	6/6.3 (1.0)	14/16.5 (0.8)	1.33
18 to 29	12	7/10.0 (0.7)	11/6.1 (1.8)	18/16.1 (1.1)	0.64
30 to 41	12	16/9.6 (1.7)	7/5.9 (1.2)	23/15.6 (1.5)	2.29
42 to 53	12	13/9.5 (1.4)	3/5.8 (0.5)	16/15.3 (1.0)	4.33
54 to 59	6	0/4.7 (0.0)	0/2.9 (0.0)	0/7.6 (0.0)	
6 to 59	54	44/35.5 (1.2)	27/35.5 (0.8)		1.63

The data are expressed as observed number/expected number (ratio of obs/expect)

Overall sex ratio: p-value = 0.044 (significant excess of boys)
Overall age distribution: p-value = 0.019 (significant difference)
Overall age distribution for boys: p-value = 0.021 (significant difference)
Overall age distribution for girls: p-value = 0.079 (as expected)
Overall sex/age distribution: p-value = 0.000 (significant difference)

Team 12:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	0/0.0	0/0.0	0/0.0	
18 to 29	12	0/0.0	0/0.0	0/0.0	
30 to 41	12	0/0.0	0/0.0	0/0.0	
42 to 53	12	0/0.0	0/0.0	0/0.0	
54 to 59	6	0/0.0	0/0.0	0/0.0	
6 to 59	54	0/0.0	0/0.0		

The data are expressed as observed number/expected number (ratio of obs/expect)
Evaluation of the SD for WHZ depending upon the order the cases are measured within each cluster (if one cluster per day is measured then this will be related to the time of the day the measurement is made).

Team: 1

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.98 (n=10, f=0)  ########
02: 1.28 (n=10, f=0)  ####################
03: 1.06 (n=10, f=0)  ###########
04: 1.13 (n=09, f=0)  ###############
05: 0.63 (n=10, f=0)
06: 0.94 (n=10, f=0)  ######
07: 1.11 (n=10, f=0)  ##############
08: 1.09 (n=09, f=0)  ############
09: 1.87 (n=06, f=1)  ##############################################
10: 1.06 (n=04, f=0)  OOOOOOOOOO
11: 0.68 (n=03, f=0)
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 2

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.99 (n=10, f=0)  ########
02: 1.14 (n=10, f=0)  ##############
03: 1.29 (n=10, f=0)  ####################
04: 0.50 (n=10, f=0)
05: 0.77 (n=10, f=0)
06: 0.88 (n=10, f=0)  ###
07: 1.31 (n=09, f=0)  ######################
08: 1.22 (n=09, f=0)  ##################
09: 1.23 (n=09, f=0)  ##################
10: 0.73 (n=05, f=0)
11: 1.38 (n=04, f=0)  OOOOOOOOOOOOOOOOOOOOOOO
12: 0.57 (n=02, f=0)
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 3

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 4

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.77 (n=10, f=0)
02: 1.27 (n=10, f=0)  ###################
03: 1.56 (n=10, f=1)  ################################
04: 0.98 (n=10, f=0)  #######
05: 1.27 (n=10, f=0)  ###################
06: 1.46 (n=09, f=0)  ############################
07: 1.49 (n=08, f=0)  ############################
08: 1.13 (n=06, f=0)  ###############
09: 0.42 (n=06, f=0)
10: 0.71 (n=04, f=0)
11: 0.47 (n=03, f=0)
12: 2.07 (n=03, f=0)  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
13: 0.38 (n=03, f=0)
14: 0.39 (n=02, f=0)
15: 1.10 (n=02, f=0)  ~~~~~~~~~~~~~
```

(when n is much less than the average number of subjects per cluster different symbols are

used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 5

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.85 (n=10, f=0)  ##
02: 0.84 (n=10, f=0)  ##
03: 1.30 (n=10, f=0)  ######################
04: 0.74 (n=10, f=0)
05: 0.99 (n=10, f=0)  ########
06: 1.01 (n=10, f=0)  #########
07: 1.16 (n=10, f=0)  ################
08: 1.05 (n=09, f=0)  ############
09: 0.89 (n=09, f=0)  ####
10: 0.78 (n=08, f=0)
11: 0.87 (n=06, f=0)  ###
12: 1.05 (n=05, f=0)  ############
13: 1.38 (n=04, f=0)  OOOOOOOOOOOOOOOOOOOOOOO
14: 0.70 (n=02, f=0)
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 6

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.92 (n=10, f=0)  #####
02: 1.34 (n=10, f=0)  ########################
03: 0.78 (n=10, f=0)
04: 1.16 (n=10, f=0)  ################
05: 0.60 (n=10, f=0)
06: 2.25 (n=10, f=1)  ############################################################
07: 1.23 (n=09, f=0)  ###################
08: 1.09 (n=09, f=0)  #############
09: 0.90 (n=06, f=0)  ####
10: 1.17 (n=05, f=0)  OOOOOOOOOOOOOOO
11: 1.81 (n=02, f=0)  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
12: 0.39 (n=02, f=0)
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 7

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 1.08 (n=11, f=0)  #############
02: 1.66 (n=11, f=1)  ###################################
03: 1.27 (n=10, f=0)  ####################
04: 1.03 (n=10, f=0)  #########
05: 1.39 (n=09, f=0)  ##########################
06: 0.74 (n=07, f=0)
07: 1.31 (n=06, f=0)  ######################
08: 0.85 (n=05, f=0)  OO
09: 1.11 (n=04, f=0)  OOOOOOOOOOOOO
10: 1.50 (n=04, f=0)  OOOOOOOOOOOOOOOOOOOOOOOOOOOO
11: 0.65 (n=03, f=0)
```

(when n is much less than the average number of subjects per cluster different symbols are used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags found in the different time points)

Team: 8

```
Time                                                SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.91 (n=10, f=0)  ####
```

```
02: 0.73 (n=10, f=0)
03: 1.26 (n=10, f=0)  ####################
04: 0.50 (n=09, f=0)
05: 1.13 (n=09, f=0)  ##############
06: 1.27 (n=08, f=0)  ####################
07: 1.26 (n=04, f=0)  OOOOOOOOOOOOOOOOOO
08: 1.50 (n=05, f=0)  ##############################

(when n is much less than the average number of subjects per cluster different symbols are
used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags
found in the different time points)
```

Team: 9

```
Time                                              SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.92 (n=10, f=0)  #####
02: 1.23 (n=10, f=0)  ##################
03: 0.70 (n=10, f=0)
04: 1.17 (n=10, f=0)  ################
05: 0.60 (n=10, f=0)
06: 1.06 (n=09, f=0)  ###########
07: 0.92 (n=07, f=0)  #####
08: 0.83 (n=04, f=0)  O
09: 0.20 (n=03, f=0)
10: 1.48 (n=03, f=0)  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
11: 0.80 (n=03, f=0)

(when n is much less than the average number of subjects per cluster different symbols are
used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags
found in the different time points)
```

Team: 10

```
Time                                              SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 0.98 (n=10, f=0)  #######
02: 0.71 (n=10, f=0)
03: 1.28 (n=10, f=0)  ####################
04: 0.79 (n=10, f=0)
05: 0.86 (n=10, f=0)  ##
06: 1.24 (n=10, f=0)  ####################
07: 1.17 (n=09, f=0)  ################
08: 1.07 (n=07, f=0)  ###########
09: 1.61 (n=06, f=0)  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
10: 0.43 (n=05, f=0)
11: 0.69 (n=03, f=0)

(when n is much less than the average number of subjects per cluster different symbols are
used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags
found in the different time points)
```

Team: 11

```
Time                                              SD for WHZ
point                 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
01: 1.27 (n=12, f=1)  ####################
02: 1.27 (n=12, f=0)  ####################
03: 1.06 (n=10, f=0)  ###########
04: 1.43 (n=09, f=0)  ##########################
05: 1.66 (n=09, f=0)  ###################################
06: 1.79 (n=07, f=1)  ########################################
07: 1.42 (n=05, f=0)  OOOOOOOOOOOOOOOOOOOOOOOO
08: 0.60 (n=03, f=0)
09: 0.49 (n=02, f=0)

(when n is much less than the average number of subjects per cluster different symbols are
used: 0 for n < 80% and ~ for n < 40%; The numbers marked "f" are the numbers of SMART flags
found in the different time points)
```

Team: 12

(for better comparison it can be helpful to copy/paste part of this report into Excel)

Annex 2: Questionnaire

1.1 Data Collector (ارقام جمع کونکی)	**1.2 Team Leader** (ټیم لیډر)	**1.3 Supervisor**	**1.4 Survey date (dd/mm/yy)** (سروی تاریخ)		
			_____ /___ / ___ /		
1.5 Province: (ولایت)	**1.6 District, ولسوالی**	**1.7 Division ناحیه**	**1.8 Location(Nahia) محل**	**1.9 Sub-Location موقعت فرعی**	**1.10 Village: کلی**
1.11 Cluster No کلستر نمبر	**1.12 HH No دکورنی نمبر**	**1.13 Team No. دټیم نمبر**			
Hello. My name is _____. I am working with Medair. We are conducting a survey about (TOPIC) among women with at least one child 0-59 months old. The information we collect will help Medair design better programs to reach women and young children. You were selected for the survey. The questions usually take about 30 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time. سلام زما نوم _____ ره دمیدایر کارکوونکی یم. موږ غواړو چی یوساروی تر سره کړو، دهغه میندوچی د ۰ څخه تر ۵۹ میاشتو یوماشوم ولری. دغه ساروی به دمیدایرسره مرسته وکړی ترڅو خپل پروګرام ددغه ساروی د اړتیا مطابق تر سره کړی اوټول ستاسواړوبنځو اوماشومانوته ر سیدګی وکړی. دغه سوالونه به ۳۰ دقیقی وخت ونیسی. ستاسوټول جوابونه به پټ وساتل سی او دهیڅاسسره به شریک نسی بغیرستاسو. تاسوبه په ساروی کی شامل نه یاست خوستاسوڅخه تقاضا کوو چی جوابونه راکړی ځکه چی ستاسو نظریات ډیر اهمیت لری. که چیری موږ ستاسوڅخه پوښتنه کوو اوتاسوموافق نه یاست چی جواب راکړی ، نوراته ووایاست چی بلی برخی ته ولاړسواویا هم تاسو کولای سی چی مصاحبه و دروی **May I begin the interview now?** زه اوس کولای سم چی مصاحبه شروع کړم؟					1=Yes (بلی) 2=No (نه)
	If Yes که هو	**Continue the interview** مصاحبی ته جریان کوو		**If No** که یا	**End the interview** د مصاحبی اخر

2. HOUSEHOLD STRUCTURE (دکورنی جوړښت)

2.1 **How many people live together in this household & share meals** |____|
پدی کورنی کی څومره کسان یوځای ژوند کوی او په شریکه غذا خوری ؟

2.2 **Who is the Head of the Household?** [1=Husband, 2=Mother, 3=My parents, 4=others , specify] |____|
[مشخص یی کړی ، د دی کورنی مشر څوک دی ؟
نور =۴ ، مور اوپلار =۳ ، مور =۲ ، خاوند =۱]

2.3 **What is the structure of your family**? [1=monogamy, 2=polygamy,3=single parent] |____| |____|
بواځی مور یا پلار ستاسی کورنی جوړښت څه دول دی ؟
=۳ ، څو ښځو خاوند =۲ ، یوی ښځی خاوند =۱]
If 2 go to 2.4 else, skip to 2.5
ک چیرته ۱ او یا ۳ انتخاب شو نو ۲,۴ سوال نه تیر شی

2.4 **If polygamous, how many wives does your husband have?** |____|
که چیرته څو ښځیو خاوند وی ، تعداد د ښځو یی وپوښتی ؟

2.5 **What is the main occupation of the household head**
ستاسی د کور د مشر عمده وظیفه څه شی ده ؟

1. Livestock herding **شپون**
2. Farmer/own farm labor **دهقان یا خپل فارم لری**
3. Employed (salaried) **وظیفه (معاش)**
4. Daily labor/Wage labor **روزمره مزدوری کوی** |____|
5. Small business/Petty trade **وړوکی تجارت لری**
6. Firewood/charcoal **لرگی ټولوی او خرڅوی**

Other (Specify **نور مشخص یی کړی** _____

2.6 **How many school age children do you have living in this household?**
څومره مکتب عمره کوچنیان په دی کورکی اوسیږی؟

Number of Boys **د هلکانو تعداد** |____| Number of girls **د انجونو تعداد** |____|

2.7 **How many boys are currently attending school?**
څومره کوچنیان اوس مکتب ته ځی؟ |____|

2.7a **How many days per week?** **څو ورځی په هفته کی ؟** ☐

2.8 **How many girls are currently attending school?** |____|
څو انجونی مکتب ته ځی؟

28.a **How many days per week?** **څو ورځی په هفته کی ؟** ☐

3.	**Anthropometric Measurements** اندازه گیری		
	How many children who are between 0 and 59 months do you have? ۰ څونه کوچنیان لری له څخه تر ۵۹ میاشتو پوری	|____|	
	CHILD HEALTH AND NUTRITION (ONLY FOR CHILDREN 0-59 MONTHS OF AGE; IF N/A SKIP TO SECTION 3.4) د ماشوم **N/A**وی نو ۳.۴برخی ته مراجعه وکړی صحت او تغذیه (یوائی ۰- ۵۹ میاشتو ماشومانو لپاره) که جواب **Instructions** دستور العمل**:** *The caregiver of the child should be the main respondent for this section* دماشوم مور یا پایواز عام وتام مسولیت لری پدی برخه کی ***3.1 CHILD ANTHROPOMETRY* دماشوم اندازه گیری** *(**Please** fill in **ALL REQUIRED** details below.)* مهربانی وکړی ټول ضروری معلومات چی لاندی ذکر شوی دی پک کړی		

A		**B**	**C**	**D**	**E**	**F**	**G**	**H**	
Child No. دماشوم نمبر	Name نوم	SEX جنس F/M	Exact Birth Date dd/mm/ YYYY د تولد تاریخ دقیق شکل سره	Age in months عمر په میاشت	Weight (KG) XX.X وزن په کیلوګرام	Height (CM) XXX.X قد په سانتی متر	Oedema پرسوب Y= Yes N= No نخیر =N بلی =Y	MUAC (mm) XXX موک په ملی متر	Color of MUAC د موک رنګ R= Red سور Y= Yellow ږیر G= Green زرغون
01									
02									
03									
04									
05									
06									
07									

3.3	**OTP/SFP Coverage for all children with Yellow MUAC, Red MUAC or with Oedema شدید او متوسط سویه تغذی ماشومانو د زر اوسره رنګ لرونکی اله یا موک او یا اډیما په واسطه معلوموو**					
	Kindly maintain the same child number as part 2 and 3.1 above **د ۲ او ۳،۱ برخی دماشوم سره مشابه وی هغه شمیره وساتی**					
	Name نوم	**A**	**B**	**C**	**D**	**E**
Child No. دماشوم نمبر		Is your child (NAME) currently enrolled in a nutrition program? ایا ستاسو کوچنی اوس په سویه تغذی پروګرام کی شامل سویدی؟ 1= Yes (ration card seen) >>Go to **B** ۱-بلی راشن کارت یی وګوره او بی برخی ته مراجعه وکړه 2= Yes (ration card not seen) ۲- بلی راشن کارت نلری 3= No (>>Go to **C** ۳- نخیرسی برخی ته مراجعه وکړه	What is the name of the organization (Clinic) treating the child (NAME) هغه د کوم ارګان د کلینک نوم دی چی کوچنیان تداوی کوی 1= Medair میډیر - 1 2= Other بل - 2 3= Don't know	Has your child (NAME) been screened by a Nutrition Extension Worker (with MUAC tape)? ایاستاسودکوچنی دموک اندازه درضاکار لخواځخه کتل سویده؟ *1= Yes (>>Go to D)* *1*- که بلی وی و دی برخی ته مراجع وکړی *2= No* ۲-نخیر	Was your child (NAME) given a referral card so you can take your child to the treatment site? ایاستاسو وماشوم ته د راجیعت کارت ورکړل سویدی چی خپل ماشوم د تداوی مرکزته ولیږی؟ *1= Yes* *1*- بلی *2= No* نخیر - 2	Why is child (NAME) **NOT** currently enrolled in a nutrition program? ولی ستاسو ماشوم اوس په سویه تغذی پروګرام کی ندی شامل؟ 1= I didn't know child is sick (malnourished) زه نه پوهیدم چی کوچنی می - 1 په سویه تغذی اخته دی 2= Distance: Clinic too far away from کلینیک دیر راځخه لری دی - 2 3= Not allowed by family دکورنی لخوا اجازه نلرم - 3 4= No Maharam to go with me محرم نلرم چی راسره - 4 ملګری سی 5= Discouraged by neighbor دهمسایه د وجی مایوسه یم - 5 = Does not know about the nutrition program دتغذی پروګرام نه وو راته - 6 معلوم 7= Other (specify) نور مشخص یی کړی - 7

01						
02						
03						
04						
05						
06						
07						
	Do you know any clinic that treats children who are malnourished? ایا داسی کلینک در معلوم دی چی ده سوي تغذی کوچنیان تداوی کوی ؟		1=Yes	2= No		
	F: How much time does it take you to go from your house to the nearest Nutrition clinic or treatment site? حُومره وخت نیسی ستاسود کورځخه تر نیزدی سویه تغذی کلینیک پوری؟ **1= 30 minutes OR less** **2=45 minutes** **3= 1 hour** **4= 1 hour 30 minutes**					

	5= 2 hours or more	
	G. Have you **received any message regarding nutrition of Infant and young children or of Pregnant and Lactating Women from Nutrition Extension Worker, or at health facility?** آیا تاسو کله د سوتغذی په ارتبات دکوچنیانو د مړولو، دحامله او شیدی ورکوونکو ښځو اړوند پیغامونه دټولنی درضاکارانو څخه ترلاسه کړی دی ؟	….|__|
	J: Please can you tell me some of the messages you received (Note to enumerators: please don't read the messages to the respondent) آیاتاسو کولای سی د هغه پیغامونو د جملی څخه چه تاسوته ویل سویدی یو څو راته ووایاست (وجواب ویونکی ته پیغام مه وا یاست	….|__|
1	Initiation of breastfeeding within one hour of birth. وماشوم ته دتولد ورسته په اول ساعت کی دمورشیدی ورکول	….|__|
2	Exclusive breast feeding until 6 months. ترشپرومیاشتوپوری یواځی دمورشیدی ورکول	….|__|
3	Continued breastfeeding at for at least the first 2 years. ماشوم ته تر ۲ کالو او تر هغه ورسته باید دمور شیدی ورکول سی	….|__|
4	Appropriate complementary feeding (introduction of solid/semi-slid foods).ensuring that mothers and young children get the necessary vitamins and minerals they need. وټولنی ته مکمله غذاوښیوی ترڅومیندی اوماشومان د لازمو ویتامینو او مینرالو څخه استفاده وکړی	….|__|
5	• Wash your hands and rub them hard after visiting wash-room. • دتشناب څخه وروسته خپل لاسونه په ښه ډول پریولی • Wash their hands thoroughly after using the toilet, changing nappies, and before meals. • دتشناب داستعمال، دکوچنیانو دچوټی بدلول او ډوډی خوړلو وروسته خپل لاسونه په صابن پریولی • Wash your hands before and after meals. • دغذاخوړلو مخکی اور وروسته خپل لاسونه پریولی • Dirty hands can cause you sick. To protect your health from many sicknesses you should wash your hands and the hands of your children	….|__|

	• چټل لاسونه ستاسو د ناروغیو سبب کیږی. دناروغیو د مخنیوی په خاطر خپل او دماشومانو لاسونه پریولی	
6	• Clean drinking water is good for your health. • دپاکو اوبو څښل ستاسو صحت ته ګټه لری • If you drink clean water, it will save your health from many diseases. • دپاکو اوبو څښل ستاسو صحت دامراضو څخه ساتی • If you drink dirty water, it will case you sick. • که پاکی اوبه ونه څښی، ستاسو د مریضی سبب کیږی • give clean water to children to keep their health from sicknesses • وماشوم ته پاکی اوبه ورکول د ماشوم صحت د امراضوڅخه ساتی • Boil the water and let it be cold in a bottle or kettle and then give it to your child • اوبه بښه وه ایشوی اوبه بوتل کی پی یخی کړی وروسته پی ماشوم ته ورکړی	….|__|
8	• Feed children equal independent of sex • خپل ماشومان هلک، انجلی ته یوشان غذاورکړی • Don`t favor boys over girls during meals • د هلک او انجلی دمړولوپروخت فرق مه کوی • Same number of meals for children (boys and girls) • هلک او انجلی ته په یوشان غذاورکړی • Don’t share plumpy nut or plumpy sup with healthy family members/healthy brothers or sisters • پلمپی نات اوپلمپی ساپ د فامیل د نوروغړو او روغوماشومانوسره مه شریکوی	….|__|
9	If the diarrhoea lasts longer than two or three days, or is accompanied by symptoms such as fever or bloody stools, you should go to doctor که اسهال تر ۲ یا ۳ ورځو زیات وخت ونیوی اویا هم دغایطه موادوسره وینه ګډه سول او یا تبه ولری باید ډاکټرته مراجعه وکړی	….|__|

3.4 **Health Care-Seeking Behaviour for the youngest child** د تر ټولو کوچنی ماشوم دپاره د هغه صحت ته ځانګړی پاملرنه په عملی ډول کول .

Name of the Mother د مور نوم
AGE OF THE MOTHER (YEARS) د مور عمر
Name of the youngest child د نوی پیداسوی کوچنی نوم
AGE of the youngest child (MONTHS) د نوی پیداسوی کوچنی عمر (میاشتی)
DATE OF BIRTH of the youngest child (DD/MM/YYYY) د نوی پیداسوی کوچنی د زیږیدنی نیټه
SEX OF CHILD (1=MALE, 2 = FEMALE)د کوچنی جنسیت (هلک ۱ انجلی ۲)

3.4.1 Has your youngest child (NAME) been ill in the past two weeks? ایا ستاسو دغه تر ټو په تیرو ۲ هفتو کی مریض سوی وی ؟

If No, please skip part i and K proceed to 3.5
ایاستاسی ماشوم (نوم یی) په تیرو دوه هفتو کی ناروغ شوی که جواب نه وی د iاو K نه تیر شی او 3.5 ته مراجعه وکړی

1=Yes (بلی)

2=No (نه) (Skip the health care seeking section)

3.4.2 If YES, what type of illness (multiple responses possible)
که جواب بلی وی کومه نوعه ناروغی لری (امکان لری چی زیات جوابونه ولری)
1 = Fever (تبه High temperature)(لوړه درجه تبه د لړزی سره
2 = ARI = Pneumonia (Any episode of fast or difficulty breathing)(سینه بغل (د ساه اخستلو کی مشکل درلودل

3 = diarrhoea (Any episode of three or more loose stools per day) نس ناستی (د دری واری څخه زیات)

4 = Other (specify) نور مشخص یی کړی

Fever Care-Seeking for the youngest **Child**
هغه کوچنیان چی تبه ولری

3.4.3 If (NAME) been sick with fever at any time in the last two weeks, did you seek advice or treatment from someone outside of the home for (NAME'S) fever?
که نوم راته وښیاست کم چی کوچنی له ۲ هفتو څخه تبه درلودل. هغه کلینک یا نفر
1=Yes (بلی)
2=No (نه)

3.4.4 Where did you seek advice or treatment for fever? (Probe for more, ask "Anywhere else?")
تاسو د تبی دپاره د چا څخه مشوره اخلی، هڅه وکړی چه ډیری ځیږنی وکړی
1=GOVERNMENT HOSPITAL دولتی شفا خانه
2=GOVERNMENT HEALTH CENTER دولتی صحی مرکز
3=MOBILE CLINIC سیار یا ګرځنده کلینک
4= COMMUNITY HEALTH WORKER د ټولنی صحی کارکوونکی
5=PRIVATE HOSPITAL/CLINIC شخصی کلینک

3.4.5 How many days after the fever began did you first seek treatment for (NAME)? څونه ورځی بعد مو کوچنی و کلینک یا هغه ځای چی ستاسی کوچنی یی کتلی وی یوړی
1= SAME DAY په عین ورځ
2= NEXT DAY بله ورځ
3=TWO OR MORE DAYS دوی یا ډیری ورځی بعد
4=DON'T KNOW نه پوهیږم

6=PHARMACY دواخانه
7=SHOP دوکان
8=TRADITIONAL Healer کورنی یا تبیبی تداوی

ARI (Pneumonia) Care-Seeking for youngest **Child** د سینه بغل کوچنیانو کتل

3.4.6 If (NAME) been sick with at any time in the last two weeks, did you seek advice or treatment from someone outside of the home for (NAME'S) ۲ هفتو څخه په سینه بغل اخته دی کم داسی مشوره یا تداوی مو کړی ده (نوم)

1=Yes (بلی)
2=No (نه)

3.4.7 Where did you seek advice or treatment for (Probe for more, ask "Anywhere else?") چیری مو د کتنی یا د تداوی لپاره مو وړی دی .

1=GOVERNMENT HOSPITAL دولتی شفا خانه
2=GOVERNMENT HEALTH CENTER دولتی صحی مرکز
3=MOBILE CLINIC سیار یا ګرځنده کلینک
4= COMMUNITY HEALTH WORKER د ټولنی صحی کارکوونکی
5=PRIVATE HOSPITAL/CLINIC شخصی کلینک
6=PHARMACY دواخانه
7=SHOP دوکان
8=TRADITIONAL Healer کورنی یا تبیبی تداوی

3.4.8 How many days after the began did you first seek treatment for (NAME)? څونه ورځی بعد مو کوچنی و کتنی یا تداوی ته یوړی

1= SAME DAY په عین ورځ
2= NEXT DAY بله ورځ
3=TWO OR MORE DAYS دوی یا ډیری ورځی بعد
4=DON'T KNOW نه پوهیږم

3.5	***Kindly maintain the same youngest child* مهربانی وکی عینی ماشوم وساتی**		
Name نوم	**A**	**B**	**C**
	Has the child received Vitamin A in the past 6 months? (show sample) ایا ستاسی ماشوم دتیرو شپږو میاشتو راهیسی ویتامین ای کپسول اخیستی دی (نمونه ورته وښایی) 1= Yes 2= No	Has the child received drugs for worms in the past 6 months? **(12-59 Months)** *(show Sample)* ایا ستاسی ماشوم د تیرو شپږو میاشتو راهیسی د چنجو دوا اخیستی ده (**۱۲ – ۵۹ میاشتنی عمرلرونکی ماشومان)** (نمونه ورته وښایی) *1= Yes* *2= No*	Has the child received measles vaccination *(On the upper right shoulder)?* (**9 months and above)** ایا ستاسی ماشوم د شری واکسین اخیستی (بنی لاس پورتنی برخه)(**۹ میاشتی یا زیات عمر** **1=Yes, Card** بلی ، کارد لری **2=Yes, Recall** بلی کارد نلری **3 = No** نه **4 = Do not know** نه پوهیږم

	MATERNAL NUTRITION FOR WOMEN OF REPRODUCTIVE AGE (15-49 YEARS)*(Please insert appropriate number in the box)* **هغه ښځی چی د تولد اوتناسل عمر ولری (۱۵ – ۴۹ کلنی عمر لرونکی ښځی)** (لطفآ مناسب عدد په بکس کی ولیکی)		
3.6	**3.7**	**3.8**	**3.9**
Woman ID. نمبر دزنانه **(all ladies in the HH aged 15-49 years تولی هغه ښځی چی په کورنی کی د ۱۵ تر ۴۹ کالو عمر ولری)**	**Name** نوم	What is the mother's / caretaker's physiological status د مور یا پایواز فزیالوژیک حالت څه شی دی 1. **Pregnant** (حامله) 2. **Lactating** شیدی) ورکونکی) 3. **Pregnant and Lactating** حامله او شیدی ورکونکی) 4. **None of the above** یو هم نه	Mother/ caretaker's MUAC reading: **XXX mm** مور یا پایواز د موک اندازه په ملی متر
1			
2			
3			
4			
5			
6			

3.10	3.11
Yesterday (within last 24 hours) at what instances did you wash your hands? (MULTIPLE RESPONSE- (Use 1 if "Yes" and 2 if "No") **پرون (تیرو ۲۴ ساعتو کی) کی مو لاسونه وینځلی دی (امکان لری چی زیات جوابونه ولری) که بلی نو ۱ او که نه خیر وی نو ۲ انتخاب کړی ؟** 1.After toilet **(وروسته د کناراب نه** |____| 2.Before cooking **مخکی د اشپزی نه** |____| 3.Before eating **مخکی د خوړو نه** |____| 4.After taking children to the toilet **وروسته له دی نه چی ماشوم کناراب ته بوزم** |____| 5.After cleaning a baby/child who has defecated |____| **د چټلی ورسته می کوچنی پاک کړی** 6.When hands are visibly dirty |____| **کله چی د ماشوم لاسونه نا پاکه وی** 7.After caring for animals (including milking) **ورسته د حیواناتو د تماس او یا لوشلو** 8.Others **نور** |____|	**If the caregiver washes her hands, then probe further; what did you use to wash your hands?** **که چیرته پایواز یا مور خپل لاسونه وینځي ، بیا پوښتنه وکړی چی لاسونه په څه شی وینځی ؟** 1. Only water **یواځی په اوبو باندی** |____| 2. Soap and water **صابون او اوبو باندی** |____| 3. Soap when I can afford it **صابون باندی که موجود وی** |____| 4. traditional herb **محلی یا سنتی گیاه گانو باندی** |____| 5. Ash **هیری** |____| 6. Any other specify **نور مشخص یی کړی** |____|
3.12	**3.13**
Yesterday (within last 24 hours) how many times did you wash your hands? (ONLY ONE RESPONSE- Use a "X" for the correct box) **دتیری ورځی ۲۴ ساعتونو څخه دی څوځلی لاسونه پریوللی دی. د صحی جواب لپاره اکس ولیکی** 1. One time **)** **یوځلی**|____| 2.Two times |____| **دوه ځلی** 3.Three times |____| **دری ځلی** 4. More than three times |____ **زیات تر دری ځلی**	**Why do you wash your hands? (MULTIPLE RESPONSES-** (Use 1 if "Yes" and 2 if "No") **تاسو ولی خپل لاسونه مینځی. که بلی وی ۱ ولیکی او نخیر وی ۲ ولیکی** 1. To prevent diseases/sickness**)** |____| **چی د امراضو مخنیوی و کړی** 2.To be clean |____| **چی پاکی رامنځ ته سی** 3.To be hygienic |____| **چی د مکروب مخنیوی وکړی** 4. For social impact |____| **د ټولنیز تاثر به خاطر** 5.I don't know |____| **نه پوهیږم**

3.14	***Kindly maintain the same youngestchild (the most recent child)*** **د نوی پیداسوی ته پاملرنه کول**	**To be conducted in Households with children aged 0 - 23 months. Focus on the child** د نوی پیداسوی کوچنی باندی توجو کول **په هغه کورنی که ډک کړی چې د ۰ ــ ۲۳ میاشتو ماشوم ولری**	
A	**Has this child ever been <u>breastfed</u>?** ایا دی ماشوم کله دمور شیدی رودلی **1 = Yes** بلی **2 = No** نه ***If no go to question FI*** که چیرته جواب نه وی نو ***F*** سوال ته مراجعه وکړی		|____|
B	**How long after birth did you first put the child to the breast** وروسته دولادت نه څومره وخت بعد دی ماشوم خپلی سینی ته واچوو **1 = Within one hour** په یو ساعت کی **2 = In first day (within 24 hours)** په لومړی ورځ کی **3 = After first day** وروسته دیوی ورځی نه **(>24 hours)**		|____|
C	**Did you feed your child with fluid or liquid that came from breasts in the first 3 days after birth (<u>COLOSTRUM</u>)** **ایا کوم مایعات چی ستاسی د سینی راوځی یعنی اورګه بعد له ولادت نه په لومړیو درې ورځو کی مو خپل ماشوم ته ورکړی** **1 = Yes** **2= No**		|____|
D	**Is this child <u>still</u> breastfeeding now?** یا تراوسه هم خپل ماشوم ته خپلی شیدی ورکوی **1 = Yes** بلی **2= No** نه		|____|
Da	**If No how long did you breastfeed this child before stopping?** که نه نو د څونه وخت لپاره مو و کوچنی ته شیدی ورکړی له دریدو څه اول ؟		|____|
E	**Exclusive breast feeding: In the last 24 hours, other than breast milk, what other foods or drinks did you give the child** په خانګړی ډول د مور په شیدو سره تغذیه کول: په تیرو ۲۴ ساعتونو کی د مور د شیدو بغیر تاسو ماشوم ته بل کوم خوارې یا څښاک ورکړی دی؟ **1 =None other than breast milk** بغیر دمور دشیدو نه می هیڅ نه دی ورکړی **2 = Powder/animal milk/yogurt** پودری ، حیوانی شیدی یا ماستی **3 = Cereals based diet** سیریلاک **4 = Plain water** ساده اوبه **5 = Fruit Juice** د میوی جوس **6 = Sugar water** دبوری اوبه **7 = Vegetables** ترکاری		
F	**What foods or drinks were given to the child <u>yesterday</u> during the day and night?** کومه نوعه خوارې مو پرون د شپی او ورځی له خوا نه ورکړی **1 =Grains, roots and tubers** حبوبات ، دانی او هغه غذای مواد چی زمکی لاندی کیږی لکه کچالو ،الو پشمک او نو ر **2 = Flesh foods (Meat/Fish/Poultry/Organ meats)** د غوښی غذا (ماهی ، غوښه ، مرغی و چرګان ، جګر او توری پښتورګی او نور **3 = Legumes and Nuts** سبزی او مغذی مواد **4 = Dairy products (milk, yoghurt, chees e)** لبنیات (شیدی ، مستی ، کوچ) **5 = Eggs** هګی **6= Vitamin A rich fruits & Vegetables** د ویتامین ای نه غنی میوه او ترکاری **7 = Other Fruits and vegetables ن(specify___)** نوره میوه او ترکاری واضح یی کړی **Others (specify)** نور مشخص یی کړی **(*Multiple responses are possible)*** شاید دیر ځوابونه انتخا ب شی		
G	**Yesterday (During the day and at night). How many times did you feed [Name] solid and semi-solid foods?** **Number of times the child was given food or drinks.** پرون په شپه او ورځ کی څو ځلی ماشوم مو په جامدو او نیمه جامدو موادو تغذیه کړی؟ چی ماشوم یی مور کړی وی		

Mortality Questionnaire (Recall period is 82 days that is since the beginning of last Ramadan) د یاد موده یی ۸۲ ورځی ده چی د روژی د شرو څخه

Demography and Mortality دمرګ اوتولنی پیژندنه

Province / ولایت		ولسوالی / District		VILLAGE: کلی	
NAME OF INTERVIEWER: دمحاصبه کیدونکی نوم			Date of the survey تاریخ سروی :		
CLUSTER NO. د کلسترشمیره		TEAM NO. دټیم نمبر		HOUSEHOLD NO. دکورنی شمیره	

د شروع څخه تر اوسه پوری (//)
06/July 2016 (Start date of the recall)

WRITE 'Y' for YES. Leave BLANK if NO
که بلی وی نو وای ولیکی او که نو وی خالی یی پریږدی

01	02	03	04	05	06	07			

a) List all the Household members That are **current living** in This Household دکورنی ټوله غری دلته لیست کړی کوم چی په دغه کورکی ږوند کوی

No.	Name نوم	Sex جنس (M یا F)	Age (years) عمر په کال	Did this person joined the Household on or after Ramadan:ایا دغه شخص د خبلی کورنی سره په روژه کی او یا هم د روژی وروسته یو خای سویدی		Was the person born on or after Ramadan: ایا دغه سړی په روژه کی او که ورسته پیداسوی دی			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

15									
16									
17									
18									
19									
20									

b) List all the household members that have **left this household** (out migrants) **since the start** of the last Ramadan.
د ټول کورنی غړی چې ستاسو یاد وی دلته لیست کړی کوم چې د مهاجرت په خاطر یې کورونه پریښی دی

No.	Name نوم	Sex جنس (M یا F)	Age (years) عمر په کال		Did this person left the Household on or after Ramadan ایا دغه سړی کور پریښی وو په روژه کې که ورسته				
1					Y				
2					Y				
3					Y				
4					Y				
5					Y				

c) List all the household members who **died** since the start of the last Ramadan.
د کورنی ټول هغه غړی لیست کړی چې ستاسو یاد وی کوم چې د شروع ځخه تراوسه مړه سویدی
چې وفات سویدی

No.	Name نوم	Sex جنس (M یا F)	Age (years) عمر په کال				Did this person died on or after Ramadan: ایا دغه سړی په روژه کی که ورسته مړسوی دی	What was the cause of death (optional) علت د مرګ (اختیاری) 1. Unknown نا معلوم 2. Injury/Traumatic زخمی /بی هوش 3. Illness مریضی Other (Specify) نور (مشخص یی کړی)	Location of death (optional) موقیعت د مرګ (اختیاری) 1. In current location په فعلی موقیت 2. 2. During migration د محاجرت په وخت کی 3. In place of last residence که په اخرنی استوګن ځای کی Other نوی
1							Y		
2							Y		
3							Y		
4							Y		
5							Y		

Was anyone in the household pregnant at the start of the last Ramadan? No [ ] Yes [ ] If yes, how many? _____
آیا په دغه کورنی کی د تیری روژی په شروع کی کومه ښځه حامله ده بلیY _____ : نه No_____ که حامله ښځی وی ځوتنی دی __

WASH Questionnaire

Q1. What is the main source of drinking-water for members of your household?

۱سوال:ستاسودکورنئ دڅښلوداوبواصلي منبع له کومه ځایه ده؟

	دباران اوبو جمع کولRainwater collection		عامه نلکه Public tap/standpipe
>>Q1 a.* **	دبوتل اوبه Bottled water		ژوري څاګاني Tubewell /borehole
	کوچني ټانکرCart with small tank/drum		محفوظ سطحي څاه ګان Protected dug well
	ټانکر – لاری Tanker-truck		غیرمحفوظ سطحي څاه ګان Unprotected dug well
	سطح ي اوبه (دریاب، بند، جهیل، کوچنی حوضچه، ویاله، کانال، داوبولګوني کانال) Surface water (river, dam, lake, pond, stream, canal, irrigation channels)		م حفوظ چیني Protected spring
	نور Other (specify)		غیرمحفوظه چینه Unprotected spring

)What is the main source of water used by your house- hold for other purposes, such as cooking and hand washing?

۱ سوال الف .ستاسودکورنی د هغه اوبو چه د لوښو پریوللو، کالو پریوللو او کتغ دپاره استعمالیږی اصلي منبع له کومه ځآیه څخه ده؟

	دباران داوبو جمع کول Rainwater collection		عامه نلکه Public tap/standpipe
	دبوتل اوبه Bottled water		ژوري څآه ګانيTubewell /borehole
	کوچني ټانکرCart with small tank/drum		محفوظ سطحي څاه ګان Protected dug well
	سطح ي اوبه (رود، بند، جهیل، کوچنی حوضچه، ویاله، کانال، داوبولګوني کانال) Surface water (river, dam, lake, pond, stream, canal, irrigation channels)		م حفوظ چیني Protected spring
	نور Other (specify)		غیرمحفوظه Unprotected spring چینه

Q2. How long does it take to go there, get water, and come back?

۲ سوال. داوبومنبع ستاسوله کور څخه څومره لرې پرته ده (تګ اوراتګ څومره وخت نیسي) ؟

>>Q4* **	داوبومنبع په حویلی کي ده Water source is in the compound		دقیقيNumber of minutes
	نه پوهیږمI don’t Know		۱۵ دقیقي 15 min
			۳۰ دقیقي 30 min
			۴۵ دقیقي 45 min

One hour ۱ ساعت			
Two hours ۲ ساعت			
Three hours ۳ ساعت			

*****If water is available in the compound then, skip Q3**

*****که اوبه دحویلی په دننه کې وي نو ۳ سوال پریږدی.**

Q3. Who usually goes to this source to fetch the water for your household?
Probe: Is this person under age 15 years? What sex? Circle the code that best describes this person.

۳ سوال. داوبو راوړل داوبودمنبع څخه دچا په غاړه دي؟
آیادغه نفرعمرد ۱۵ کلونوڅخه کم دی؟ جنسیت یی ؟ دلاندې کوډ څخه دایره وکاړی ترڅونوموړی شخص ښه مشخص شي؟

Adult woman ځواني ښځې			
Adult man ځوان سړي			
Female child (under 15 years) ښځينه ماشومان (د۱۵ کلونوڅخه کم)			
Male child (under 15 years) نارينه ماشون (د۱۵ کلونوڅخه کم)			
I don't know نه پوهيږم			

۴ سوال. کومې اوبه چه تاسوراوړی په کومه طریقه سره پاکوی ترڅو دڅښلووړ شي؟

Q4. Do you treat your water in any way to make it safer to drink?

Yes بلي		**>>Q5**
No نه خیر		**>>Q6**
I don't know نه پوهيږم		**>>Q6**

Q5. What do you usually do to the water to make it safer to drink?
۵ سوال. ددې لپاره چه دڅښلولپاره آماده شي څه ورسره کوی؟

Boil جوش کول			
bleach/chlorine دکلورين علاوه کول			
Use a water filter (ceramic, sand, composite, etc.) داوبودفلترڅخه استفاده کول(سرامیک، ريګي ،مختلط)			
Infection دلمرپه واسطه سره ضدعفوني کولsolar			
Let it stand and settle پريښودل ترڅوودريږي او ترسب وکړي			
Other (specify) نور			
I don't Know نه پوهيږم			

Q6. "Some people prefer to defecate in the bush or the open, some prefer to defecate in a latrine or toilet, and some prefer other places. What are the places that adults in this household defecate? [For all responses other than bush/open] Can you show me this facility?"

۶ سوال. بعضي خلک داخوښوي چه درفع حاجت لپاره دبوټو څخه استفاده وکړي يا آزاده فضاکي، بعضي خلک کناراب استفاده کوي، اوبعضي خلک نور ځآيونه خوښوي. ځوانان درفع حاجت لپاره ستاسوپه کورکي کوم ځای څخه استفاده کوي؟ [دټولوځوابونو لپاره بغيردبوټو/آزاده فضاځخه] کيدای دا راته په نښه کړي؟

	ځورند کناراب يا تشنباب Hanging toilet/hanging latrine		داصلاح شوي کناراب چه دبدرفت څاه ولري Ventilated improved pit latrine (VIP)
	نلري No facilities		څاه لرونکی کناراب چه سرپوښ ولري Pit latrine with slab
	کيندل اوښخول Dig and Burry		څاه لرونکی کناراب بغير دسلب څخه Pit latrine without slab/open pit
	آزاده فضا Open defecation		په سره تبديلونکی کناراب Composting toilet
	نور Other specify		دولچه ياسطل Bucket

Q7. Do you share this facility with other households?

۷ سوال. آيا نوموړي انواع دکنارابونو دنور خلکوسره شريک استفاده کوی؟

بلي Yes		**>>Q8**
نه خير No		**>>Q9**
نه پوهيږم I don't know		**>>Q9**

Q8. How many households use this toilet facility?

۸ سوال. څوکورونه دغه کناراب استفاده کوي؟

څونورکورنه دغه تشناب په گډه سره استفاده کوي How many other households share this toilet?			

کیدای شي چه هرڅوک ددي تشناب څخه عامه استفاده وکړي Can any member of the public use this toilet?			
I don't Know نه پوهیږم			

Q9. Do you have children under 5 years old in the household?

۹ سوال. تاسو په کورنی کي د۵ کلو څخه کم عمره ماشومان لری ؟

بلي Yes	**>>Q10**		
نخیر No			
نه پوهیږم I don't know			

Q10. The last time [name of youngest child] passed stools, what was done to dispose of the stools?

۱۰ سوال. په تیر وخت کي [دلوی ماشوم نوم] غایظه مواد، څه موکړل ترڅودهغوی غایطه مواد لري کړی؟

ماشوم دتشناب/کناراب څخه استفاده وکړه Child used toilet/latrine			
پریولل اوپه تشناب کي دهغه اچول Put/rinsed into toilet or latrine			
پریولل اوپه ویاله کي خالي کول Put/rinsed into drain or ditch			
کثافاتوکي اچول Thrown into garbage			
ښخول Buried			
په آزاده فضاکي پریښودل Left in the open			
نور(specify) Other			
نه پوهیږم I don't know			

Food Security Questionnaire

دغذايی مصئونيت پوښتنې دبيس لاين سروې لپاره

1. HH DIETARY DIVERSITY and FCS (FOOD CONSUMPTION SCORE)

Which of the following foods and/or food groups have been consumed by members of your Household (HH) during the last week? How many days per week? (Weekly frequency=WF, answers should be between 0 and 7.

دتيرې اوونۍ په جريان کې ستاسودکورنۍ غړو کوم يو دلاندينيوغذاګانواو يا غذايی ګروپونوڅخه مصرف کړي دي؟ په اونۍ کې څوورځې؟ (اونيزه فريکونسي
WH= ،(ځواب بايد د ۰ او۷ ترمينځ وي).

Food Groups	دغذايی موادوګروپ	Entire HH Weekly Frequency	ټول کورونه
الف) غلي داني: جوار، وريجي، غنم، اونوري غلي داني ياغذاوې چه ددوی څخه جوړيږي لکه (پوډی،آش، اوګره) *A)Cereal: Maize, rice, wheat, any other grains or foods made from these (i.e. bread, noodles, porridge)*			
ب) سپيني ريښي اودځمکې لاندې تنې: سپيني پټاټي،شلغمي *B) White roots and tubers: White potatoes, turnips*			
ج) هغه سبزيجات چه ويټامين اې ولري: لکه کدو، ګاجري، کوچني کدو، خوږکدو *C)Vitamin A rich vegetables and tubers: Pumpkin, carrot, squash*			
د) تياره شين رنګه پاڼې لرونکي سبزيجات: لکه وحشي سبزي، پالک،کرم، تياررنګه شين کرم *D) Dark green leafy vegetables: including wild veg, spinach, kale, dark green cabbage*			
ر) نورسبزيجات لکه رومي، روب، پياز، توربانجان. اونورمحلي سبزيجات *E) Other vegetables (i.e. tomato, tomato paste, onion, eggplant), any other locally available vegetables*			
د) زردالو (تازه او وچ) ام *F) Apricot (fresh or dried), mangoes*			
ز) نوري ميوې په شمول د وحشي ميوو، مڼې، توت *G) Other fruits including wild fruits, apples, mulberries*			
غوښې *H) Any mea t*			
هګی *I)Any eggs*			
تازه يا قطی شوي سبزيجات			

) Any fish(fresh or canned)
وچه شوي لوبيا، وچ شوي نخود،پلي،چارمغز، تخم اوياهغه غذا چه دنوموړوڅخه جوړيږي(مټر،کوچ ..)
K) Dried beans, dried peas, lentils, nuts, seeds or foods made from these (i.e. peanut butter, etc)
شيدي، پيروی، مستي اويا نورمحصولات چه دشيدوڅخه جوړيږي.
L) Milk, cheese, yogurt or other milk products
غوړ، شحميات اويا کوچ کوم چه غذاته اضافه کيږي اود پخولو لپاره استفاده کيږي.
M) Oil, fats or butter added to food or used for cooking
بوره، عسل،هغه شيان چه خوږوالی ولري لکه چاکليټ، پلميټ، کلچي
N)Sugar, honey, sugary foods such as chocolates, candies, cookies
ترخه شيان: تورمرچ، مالګه، قورمه لکه ګرمه قورمه، قهوه، چای اونور
O) Spices (black pepper, salt), sauce (e.g. hot sauce), coffee, tea, etc

2. HH FOOD CONSUMPTION
دکورنۍ دغذا مصرف

2a. How many meals do the members of the HH eat in one day? **ستاسودکورنۍ غړي په يوه ورځ کي څو واری غذاخوري؟**	ټول کور

2b. How many times in the last week did you just eat naan and tea for a meal? **دتيرې اوونۍ په جريان کي مو څوځله يواځي ډوډی اوچای خوړلي دي؟**	ټول کور

3. MAHFP (MONTHS OF ADEQUATE HOUSEHOLD FOOD PROVISIONING)
دکورنۍ کافي غذا آماده کول په مياشت کي

دغه سوال دکورنۍ دغذا دمصرف په اړه دی کوم چه دکال په مختلفومياشتوکي مو په مصرف رسولي. دتيرو۱۲ مياشتوپه باره کي فکروکړی، اوهمدارنګه دتيرکال په باره کي. څومياشتي؟ په تيروڅومياشتوکي، کوم چه تاسوپه کافي اندازه سره غذا نه درلوده ترڅوستاسوضرورت رفع کړي.
۰=نه بلي پوښتنې ته ولاړشی=بلي
دهغه مياشتي څنګ ته ديو عدد وليکی کوم چه تاسوپه هغي مياشت کي کافي اندازه سره غذانه درلوده.

په دي کي څه ډول غذا کوم چه تاسوديوي منبع څخه لاس ته راوړي شامله ده، لکه دخپل لاس محصول، خريداري يا تبادله، دغذا کمک يا پور
=بلي

DO NOT READ THE LIST OF MONTHS ALOUD. PLACE A 1IN THE BOX IF THE RESPONDENT IDENTIFIES THAT MONTH AS ONE IN WHICH THE HOUSHOLD DID NOT HAVE ENOUGH FOOD TO MEET THEIR NEEDS. IF THE RESPONDENT DOES NOT IDENTIFY THAT MONTH, PLACE A 0 IN THE BOX.

دمیاشتونومونه په لوړ آواز سره مه وایاست، که ځواب ویونکي هغه میاشت پّه نښه کړه کوم چه په هغه میاشت کي کورنی کافي اندازه غذا ته لاسرسی نه درلود نو په خالي ځای کي د A توری ولیکی .او که چیري ځواب ویونکي هغه میاشت په نښه نه کړه نو په خالي ځای کي 0 ولیکی .

		SKIP
	If no months with inadequate food, skip to next question. که جواب نه وی، راتلونکی سوال ته ولاړ سی	
	Months with inadequate food	**CODE**
A	Mizan 21 Sept – 20 Oct 2015 (میزان ۲۱ سپتمر – ۲۰ اکتوبر۱۳۹۴)	
B	Aqrab 21 Oct – 20 Nov 2015 (عقرب ۲۱ اکتوبر- ۲۰ نومبر ۱۳۹۴)	
C	Qaus 21 Nov-20 Dec 2015(۱۳۹۴ قوس ۲۱ نومبر – ۲۰ ډسمبر)	
D	Jadi 21 Dec -20 Jan 2016 ۱۳۹۵(جدی ۲۱ ډسمبر- ۲۰ جنوری)	
E	Dalw 21 Jan – 20 Feb 2016۱۳۹۵ دلوه ۲۱ جنوری – ۲۰ فبروری	
F	Hut 21 Feb – 20 Mar 2016 ۱۳۹۵ حوت ۲۱ فبروری – ۲۰ مارچ	
G	Hamal 21 Mar – 20 April 2016 حمل ۲۱ مارچ – ۲۰ اپریل ۱۳۹۵	
H	Saur 21 April – 20 May 2016۱۳۹۵ تور ۲۱ اپریل – ۲۰ می	
I	Jawza 21 May – 20 June 2016۱۳۹۵ جوزا ۲۱ می – ۲۰ جون	
J	Saratan 21 June – 20 July 2016 سرطان ۲۱ جون – ۲۰ جولای ۱۳۹۵	
K	Asad 21 July – 20 August 2016۱۳۹۵ اسد ۲۱جولای۲۰اگست)	
L	Sonbola 21 August – 20 Sept 2016 سنبله ۲۱ اگسن – ۲۰ سپتمبر ۱۳۹۵	

4. HFIAS (HOUSEHOLD FOOD INSECURITY ACCESS SCALE)

غذایي مصؤنیت ته دکورنۍ دلاسرسي اندازه یا معیار

۲۰۱۶

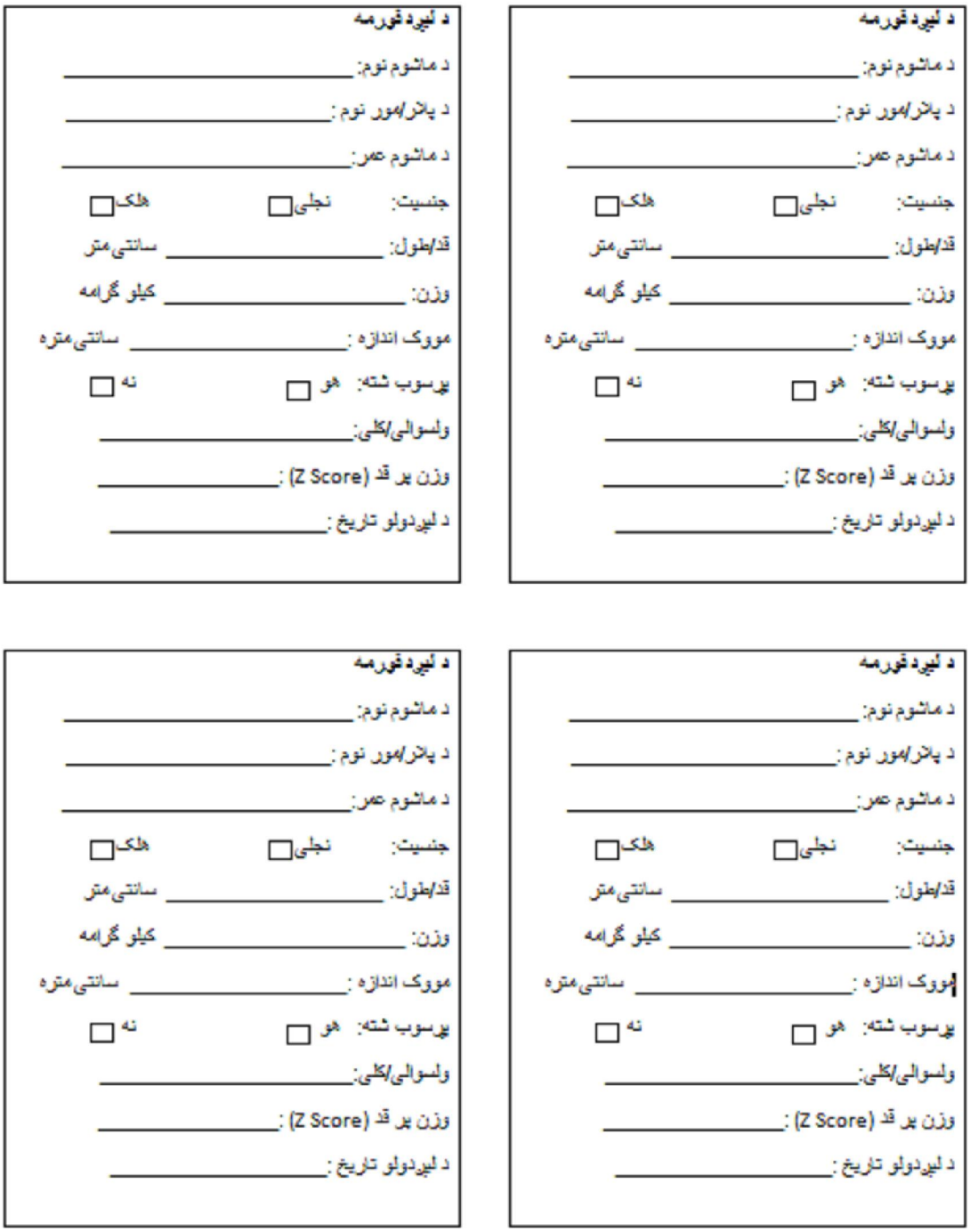
No نمبر	QUESTIONS پوښتنې	RESPONSE OPTIONS دځوابونو ځای	CODE کوډ
4.1.	په تیروځلورو اونیو کي آیا تاسوورخطا واست چه په کافي اندازه سره به غذا ونلرو؟ In the past four weeks, did you	No نه خیر =0 Yes بلي =۱	

	worry that your household would not have enough food?		
4.1.a	څومره وخت وروسته داسي واقع سوی ول؟ How often this did happen?	۱= ډیرکم (یوځل یا دوه ځله په تیروځلورو اونیوکي ۲= بعضي وخت (۳-۱۰ ځله په تیروځلورواونیوکي) ۳= ځوځله(د ۱۰ ځله څخه زیات په تیروځلورو اونیوکي) 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.2.	په تیرو څلورواونیو کي آیاداسي واقع شوي چه تاسویادکورنی بل کوم غړی دمنابعودکموالي په خاطرنه دی توانیدلی هغه غذاچه تاسوبرابره کړي وخوري؟ In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because a lack of resources?	۰= نه خیر۴،۳سوال ته ولاړشی ۱= بلي هو 0= No (skip to Q4.3) 1= Yes	|__|....
4.2.a	ه څومره وخت کي داسي پیښیږي ؟ How often this did happen?	۱= ډیرکم (یوځل اویا دوه ځله په تیروځلورواونیوکي) ۲= بعضي وخت (درې یا لس ځله په تیروځلورواونیوکي) ۳= معمولا (دلس ځله څخه زیات په تیروځلورو اونیوکي) 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.3.	په تیروځلورواونیوکي داسي پیښ شوي چه تاسویا ستاسودکورنی بل غړي دمنابعودکموالی په خاطرمحدوده/کمه اندازه غذا خوړلي وي؟ In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?	۰= نه خیر ۴،۴ سوال ته ولاړشی ۱= بلي (هو) 0= No (skip to Q4.4) 1= Yes	|__|....
4.3.a	په څومره وخت کي داسي پیښیږي؟ How often this did happen?	۱= ډیرکم (یوځل یا دوه ځله په تیروځلورو اونیوکي) ۲= بعضي وخت (درځله یا لس ځله په تیروځلورو اونیوکي) ۳= اکثره وخت (دلس ځله څخه زیات) 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.4.	په تیرو څلورواونیو کي داسي پیښ شوي چه تاسو یاستاسو کورنی غړي	۰= نه خیر ۱= بلي (هو)	|__|....

	دمنابعو دنشتوالي په خاطرداسي غذا خوړلي وي چه تاسي هغه نه غوښته يا دغوښتني مطابق نه وه؟ In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other type of food?	1-No 2-Yes	
4.4.a	په څومره وخت کي داسي پيښه واقع کيږي؟ How often this did happen?	۱= ډيرکم (يوځل يا دوه ځله په تيروڅلورو اونيوکي) ۲= بعضي وخت (درى ځله – لس ځله) ۳= اکثره وخت (دلس ځله څخه زيات په تيرو څلورو اونيوکي) 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.5.	په تيروڅلورو اونيوکي تاسي ياستاسودکورنى کوم غړى دکافي غذا دنشتوالي په خاطر کمه ډوډى خوړلي ده؟ In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	۰= نه خير No ۱= بلي Yes	|__|....
4.5.a	څومره وخت وروسته داسي پيښيږي؟ How often this did happen?	۱= ډيرکم (يوځل يا دوه ځله په تيروڅلورواونيوکي) ۲= بعضي وخت (درى –لس ځله په تيروڅلورواونيوکي) ۳= اکثره وخت (دلس ځله څخه زيات په تيرو۴ اونيوکي) 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.6.	په تيروڅلورو اونيوکي داسي پيښ شوي چه تاسودغذا دنشتوالي لکبله دکافي اندازي څخه کمه غذاخوړلي وي؟ In the past four weeks, did you or any household member have to eat a fewer meals than you felt you needed because there was not enough food?	۰= نه خير ۷,۴ سوال ته ولاړشی ۱= بلي 0= No (skip to Q4.7) 1= Yes	|__|....
4.6.a	په څومره وخت کي داسي پيښيږي؟ How often this did happen?	۱= ډير کم (يوځل يادوه ځلي په تيروڅلورواونيوکي) ۲= بعضي وخت (۳-۱۰ ځله) په تيروڅلورواونيوکي	|__|....

		۳= معمولا (د۱۰ ځله) څخه زیات په تیروځلورو اونیوکي 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	
4.7.	دغذا دمنابعودکموالي له امله په تیروځلورو اونیوکي داسي پیښ شوي چه په کورکي هیڅ غذانه وي موجوده؟ In the past four weeks, was there ever no food to eat of any kind in your household because of a lack of resources to get food?	۰= نه خیر ۴,۸ سوال ته ولاړشی ۱= بلي 0= No (skip to Q4.8) 1= Yes	|__|....
4.7.a	په څومره وخت کي داسي پیښیږي؟ How often this did happen?	۱= ډیر کم (یوځل یادوه ځلي په تیروځلورواونیوکي) ۲= بعضي وخت (۳-۱۰ ځله) په تیروځلورواونیوکي ۳= معمولا (د۱۰ ځله) څخه زیات په تیروځلورو اونیوکي 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.8.	په تیرو څلورو اونیوکي داسي واقع شوي چه تاسویاستاسودکورنی کوم غړی دکافي اندازه غذا نه لرلوله امله په لوږه بیده شوي وي In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?	۰= نه خیر ۱= بلي (هو) No Yes	|__|....
4.8.a	په څومره وخت کي داسي پیښیږي؟ How often this did happen?	۱= ډیر کم (یوځل یادوه ځلي په تیروځلورواونیوکي) ۲= بعضي وخت (۳-۱۰ ځله) په تیروځلورواونیوکي ۳= معمولا (د۱۰ ځله) څخه زیات په تیروځلورو اونیوکي 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	|__|....
4.9.	په تیروځلوراونیوکي آیاداسي پیښ شوي چه تاسویاستاسودکورنی کوم غړي دکافي غذا دنه درلودلوپه خاطر شپه اوورځ ډوډی نه وي خوړلي In the past four weeks, did you or any household member go a whole day and night without eating anything because there	۰= نه خیر ۱= بلي Yes No	|__|....

4.9.a	was not enough food? په ځومره وخت کي داسي پيښ شوي؟ How often this did happen?	۱= ډير کم (يوځل يادوه ځلي په تيروځلورواونيوکي) ۲= بعضي وخت (۳-۱۰ ځله) په تيروځلورواونيوکي ۳= معمولا (د۱۰ ځله) څخه زيات په تيروځلورو اونيوکي 1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	
5.	ايا تاسو په خپل کورکي څه کرلي دی د خوراک لپاره؟ **Do you grow anything in your house compound that you eat?**	**1= Yes بلی** **2= No نخير**	
5.a	**5.a. If Yes, what do you grow?** **که بلی وی نو څشی موکرلی دی**	**1= Vegetable سبزيجات** **2= Fruits ميوی**	



Annex 3: Local Calendar of events