AFGHANISTAN

NUTRITION & MORTALITY SMART SURVEY

FINAL REPORT

KAPISA PROVINCE, AFGHANISTAN

16TH OCTOBER TO 6TH NOVEMBER 2016

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Funded by: OCHA

Action ontre la Faim

Non-governmental, non-political and non-religious organization

ACKNOWLEDGMENT

Action Contre la Faim (ACF) Afghanistan would like to thank the following stakeholders for their support in successful implementation of nutrition and mortality SMART survey in Kapisa province.

- Public Nutrition Department (PND), Nutrition cluster and Afghanistan Information Management Working Group (AIM-WG) for their support in methodological review and guidance.
- Kapisa Provincial Public Health Directorate (PPHD) and currently Kapisa Provincial Nutrition officer (PNO) for the support provided in authorization of the survey.
- Office for the Coordination of Humanitarian Affairs (OCHA) for their financial support in the survey.
- ACF teams in Kabul and Paris for technical, logistics and administrative support.
- Survey teams composed of enumerators, team leaders and supervisors for making the whole process smooth.
- All the community members for welcoming and supporting the survey teams during the data collection process.
- Strengthen mechanism (SM) in Kabul and Kapisa for their support in the survey.

ABBREVIATIONS

ACF	Action Contre la Faim/Action Against Hunger
SM	Strengthen mechanism
AIM-WG	Afghanistan Information Management Working Group
BCG	Bacillus Chalmette Guerin
BPHS	Basic Package of Health Services
CDR	Crude Death Rate
CHW	Community Health Worker
CSO	Central Statistics Organization
ENA	Emergency Nutrition Assessment
FSL	food Security and Lively hood
GAM	Global Acute Malnutrition
HH	Household
IYCF	Infant and Young Child Feeding
IP	Implementer
MOPH	Minister of Public Health
MUAC	Mid Upper Arm Circumference
MW	Mean Weight
NNS	National Nutrition Survey
OW	observed Weight
PND	Public Nutrition Department
PPS	Proportional Population Size
PND	Public Health Nutrition Department
RC	Reserve Cluster
SAM	Severe Acute Malnutrition
SD	Standard Deviation
SMART	Standardized Monitoring and Assessment of Relief and Transition
U5DR	Under five Death Rates
U5	Under five
UNICEF	United Nation Children's Fund
WFP	World Food Program
WASH	Water Sanitation and Hygiene
WHZ	Weight for Height Z score
W/H	Weight for height
WHO	World Health Organization
OCHA	Office for the Coordination of Humanitarian Affairs

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EXECUTIVE SUMMARY

The nutrition and mortality SMART survey was conducted from 16th Oct to 6th Nov 2016, in all districts of Kapisa province. A total of 666 households randomly selected were surveyed. The nutrition and mortality SMART survey final report provides a summary of the methodology used, analysis and interpretation of the survey findings and recommendation proposed.

Summary findings

- A total of 1002 children aged (0-59 months) and 927 children aged (6-59 months) were assessed in 666 randomly selected Households in the survey.
- Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) prevalence based on Weight –for- Height Z-scores (WHZ) was at 7.4 % (5.5 - 9.9 95% C.I.) and 1.6 % (0.9 - 2.7 95% C.I.) Respectively.
- No edema cases were found.
- GAM and SAM prevalence based on Mid Upper Arm Circumference (MUAC) was at 12.9 % (9.9 - 16.8 95% C.I.) and 2.5 % (1.6 - 3.8 95% C.I.) Respectively.
- The combined MUAC and WHZ based on both criteria revealed GAM and SAM rates **14.9 % (12.6-17.2 95% CI)** and **5% (3.6-6.4 95% CI)** Respectively.
- Prevalence of stunting was at 54.4 % (50.3 - 58.4 95% C.I) while severe stunting was at 20.8 % (17.4 - 24.7 95% C.I.).
- Prevalence of underweight was 27.9 % (23.3 - 32.9 95% C.I.) and severe underweight was 6.1 % (4.4 - 8.5 95% C.I.).
- Nutrition status of pregnant and lactating women (15-49 years) was 16.5 %.
- Crude Mortality Rate (CMR) was 0.54% (0.33-0.90) with 1.46 design effect Crude mortality rate through 0.69% (0.32-1.50) under five mortality rates.
- The coverage of Immunization (measles aged (9-59 months) both by cards and recalls 90.6 % , Polio aged (0-59 months(both by cards and recalls 98.2 % and BCG confirmed by scar aged (0-59 months) were 95.7 % respectively .

INTRODUCTION

Climate and Geography

Kapisa is one of the 34 provinces of Afghanistan located in the north-east of the country , this province is divided by seven districts such as Hisaa-e- Duwum Kohistan, Hissa-e- Awali Kohistan, Nijrab, Tagab, Alasia, Koh Band and the capital of the province Mahmood Raqi. The population of the province is about 441,010[1]. It is bordered from the north by Panjshir, from the east by Laghman, from the south by Kabul and from the south west by Parwan provinces, it has the mostly rural society in the province (Annex 1).

Description of the population

The province covers an area of 1,842 km^2; that makes it the smallest province in all of Afghanistan. Kapisa Province's terrain is a mixture of high peaks, mountainous river valleys, and shallow central plains; the highest points of the province are in the east, on the borders with Panjshir and Laghman Provinces.

The results of the Nutrition and mortality SMART assessment is only representing the covered population of the province, this is the limitation of the nutrition and mortality SMART survey methodology and due to insecurity, all 7 districts secured villages of the province were included in the present survey: Nijrab, Hissa-e-Duwam Kohistan, Hissa-e-Awal, Kohi Band, Tagab, Alasia and Mahmood Raqi districts. The 7 district secured villages represent 78% of the total population of Kapisa province, based on EPI population represent 79.3% (590113 out 744067).

SURVEY OBJECTIVES

General objective

- To determine the nutritional status of vulnerable population mainly under five, pregnant and lactating women living in Kapisa province.

Specific objectives

- To estimate Crude Death Rate (CDR) and Under five Death Rate(U5DR)
- To determine prevalence of under nutrition among children aged 0-59 months
- To determine core Infant and Young Child Feeding(IYCF) practices among children aged 0-23 months
- To determine the nutritional status of pregnant and lactating women based on MUAC assessment
- To assess Water, Sanitation and Hygiene (WASH) proxy indicators: household water storage, water use and caregiver hand washing practices.
- To estimate vitamin A supplementation and deworming coverage in the last 6 months among under-five

[1] CSO update population for 1394 (2015 – 2016)

- To estimate Iron-folate supplementation coverage among pregnant women.
- To estimate coverage of measles and BCG vaccination
- To assess morbidity among children 0-59 months based on a two weeks recall period.
- To assess coping strategy and food consumption at HH level.

Justification

The justification of the proposed assessment is to estimate the current prevalence of under-nutrition among vulnerable populations in Kapisa province. The survey will also investigate the current mortality rates, child health status (morbidity, immunization and supplementation), nutritional status of women of reproductive age (15-49 years) with special focus on pregnant and lactating women, IYCF and WASH practices. The last assessment that provided information on nutritional status of under-five were conducted through the National Nutrition Survey in 2013 and GAM rates were at poor levels of WHO classification. There is a need to investigate on the current prevalence of under-nutrition in the province. The Survey findings will be used to inform future programing in the Kapisa province. It will also serve as a good opportunity of building the capacity of stakeholders.

METHODOLOGY

Sample Size

The survey was cross- sectional and used a two – stage cluster sampling approach using the SMART (Standardized Monitoring and assessment of relief and transition) methodology. The primary sampling unit was villages and basic sampling unit was household.so, 48 clusters (see Annex 2) from total list of villages selected, using probability proportion to size (PPS) Second stage of methodology involved systematic random sampling method used for selection of household and 14 household have been selected from an updated list of households. It can be mentioned that during survey the household's selection took place at community level.

The table 1 and 2 highlights sample size calculation for anthropometric and mortality surveys.

Table 1: Parameters for sample size calculation of anthropometric indicators, Kapisa SMART, Nov 2016

Parameters for Anthropometry	Value	Assumptions based on context
Estimated prevalence of GAM (%)	8.7 %	According to the National nutrition survey 2013, the Global Acute malnutrition is estimated 7.4% (95 % CI: 5.71-9.62) with 1.3 SD and it is above form the recommended SD 1.2, and the GAM rate for Panjshir is estimated 8.7 % (95%CI: 6.8-11.0) with 1.08 SD and based on neighbor provinces of Kapisa the estimated GAM prevalence of Panjshir was used for the planning stages in Kapisa nutrition SMART survey.

± Desired precision	2.5%	It was based on survey objectives in line to estimated prevalence and SMART methodology recommendations. If we use an estimate point prevalence of 8.7% as our predicted GAM prevalence then a precision of ±2.5 is recommended.
Design Effect *(if applicable)*	1.5	The population living in the targeted districts is considered as having similar living conditions and the same access to food and social conditions. Nevertheless, access to health facilities cannot be estimated as similar within the targeted population as some remote areas are not well served by health facilities. Hence the design effect was estimated at 1.5.
Children to be included	670	Minimum sample size-children aged 6-59 months. (However to avoid possible bias of selection for younger age group, all children from 0 to 59 months old found in the selected households will be surveyed.)
Average HH Size	7.9	Based on Panjshir Nutrition SAMRT Survey April 2016, the average household size was 7.9 – It's the most recent result data available.
% Children under-5	17.8%	The percentage of under-five (U5) was estimated at 17.8 % at the Panjshir nutrition SMART survey. Therefore, 17.8 will be used and considered the more conservative, updated and accurate estimate.
% Non-response Households	6%	The percentage of non-respondent households was estimated at 6%. Using the same percentage as that of 2011 and similar to the non-response rate of the NNS for Afghanistan (2013)[2] was 6%. The non-response rate will cater for unforeseen circumstances to include refusal, absenteeism or population movements
Households to be included	670	Minimum sample size-Households to be surveyed. Households were the basic sampling unit for the SMART survey

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

Table 2: Sample size calculation for mortality surveys, Kapisa SMART, November 2016

Parameters for Mortality	Value	Assumptions based on context
Estimated Death Rate /10,000/day	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 /10,000/day	0.3	Based on survey objectives and inline to estimated death rate
Design Effect *(if applicable)*	1.5	This were caters for heterogeneity in the population being sampled
Recall Period in days	95	Starting point of recall period were done (from the start of Eid Fetar). 16th Saratan1395 the date of recall is equivalent to 6th July 2016 as per Gregorian calendar.
Population to be included	3,668	Population
Average HH Size	7.9	Based on Panjshir Nutrition SAMRT Survey April 2016, the average household size was 7.9 – It's the most recent result data available.
% Non-response Households	6%	The percentages of non-respondent households were estimated at 6%. Using the same percentage as that of 2011 and similar to the non-response rate of the national nutrition survey for Afghanistan (2013)[3] of 6%. The non-response rate will cater for unforeseen circumstances to include refusal, absenteeism or population movements
Households to be included	494	No updated death rate at population level; Recommended in cases where there is no specific mortality data for the area to be surveyed.

Sample Size for Additional Indicators:

The sample size for IYCF indicators were calculated by using the Care international IYCF calculator, based on WHO, 2010[4] IYCF core indicators include: early initiation of breastfeeding, Exclusive Breastfeeding Rate (EBF),complementary feeding, minimum diversified diet and minimum meal frequency were

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

[4] WHO 2010, Indicators for Assessing Infant and Young Child Feeding Practices

assumed in the period of data collection, a stratified proportionate sampling methodology will be applied.

Table 3: Sample size calculation for IYCF indicators, Kapisa SMART, November 2016

Parameters for Anthropometry	Value	Assumptions based on context
Estimated Prevalence of indicator (%)	50%	No recent data, a standard prevalence of 50 % recommended by WHO was used
± Desired precision	8%	Based on survey goals.
Design Effect *(if applicable)*	2	Caters for heterogeneity within the population under study.
Survey subjects to be included	327	Children form 0-23 months
Average HH Size	7.7	National Nutrition Survey 2013
% Non-response Households	6%	From the past experiences of Afghanistan assessments due to sensitivities about mortality information.
Households to be included	330	House holds

Sampling Methodology

A two-stage cluster sampling methodology was used

In the stage 1, random selection of clusters/villages was done using probability proportionate to size (PPS) using ENA for SMART software version 2011 of (9th July, 2015). A list of all updated secure villages (446) was inserted into the ENA for SMART software where PPS was applied. The villages with large population have a higher chance of being selected than villages with small population and vice versa. Reserve Clusters (RCs) will also be selected by ENA software version 2011(updated 9th July 2015). Reserve clusters will only be used if 10% or more clusters were impossible to reach during the survey. A total of 48 clusters was covered if each survey team completes anthropometric measurements in 14 households in a day (670/14=48 clusters). In each selected village, one or more community member(s) was asked to help the survey teams to conduct their work by providing information about the village with regard to the geographical organization or the number of households. In cases where there are large villages in a cluster, the village was divided into smaller segments and a segment was selected randomly to represent the cluster. This division was done based on existing administrative units e.g. neighborhoods, or streets or natural landmarks like river, road, or public places like market, schools, and mosques.

In the Stage 2, random selection of households from updated and complete list of households within a given village. In this case the actual survey data collection, included 670 households randomly selected based on survey parameters calculation for anthropometric. Based on total sample size each team can effectively cover 14 households in a day. In this assessment, 6 teams were engaged during the

assessments, while data collection is expected to last 8-9 days. All households was enumerated and given numbers by the survey team. The 14 households was chosen randomly from these enumerated households, by randomly drawing household numbers required from a hat or using a random number table generated from ENA for SMART software. In cases where it is difficult to obtain an updated list of households systematic random sampling was used to identify the households to be surveyed. The teams were trained on both methods of sampling (simple and systematic random sampling) and they will also be offered with materials to assist in determining the households during the data collection exercise.

All the children living in the selected house aged (0 to 59) months old was included for anthropometric measurements. Children aged (0-23) months were included for IYCF measurements. If more than one eligible child is found in a household, both were included, even if there are twins. Eligible orphans living in the selected Households were also surveyed. All of the selected HH was included in the mortality survey as well as have responded to questions concerning the HH as a whole (ex. water storage).

Any empty households, or households with missing or absent children was revisited at the end of the sampling day in each cluster; any missing or absent children who were subsequently found was not included in the survey. A cluster control form was used to record all these missed and absent households.

Table 4: the achievement of the planned activities in the sampled, Kapisa SMART, November 2016

Number of HH planned	Number of HH surveyed	% surveyed /planned	Number of children 6-59 months planned	Number of children 6-59 months surveyed	% surveyed /planned
672	666	99.1 %	797	928	116.4%

The household was the basic sampling unit. The term household was defined as all people eating from the same pot and living together (WFP definition). In Afghanistan, the term household is often defined and/or used synonymous with a compound – which potentially represents more than one household as defined here. In this case, a two-step process was ensured with the village leaders/community elders and then identifying compound together with the use of the list of households within the community, asking if there are multiple cooking areas to determine what members of the household/compound should be included in the study.

TRAINING, TEAM COMPOSITION AND SUPERVISION

Six teams of four members were assigned for data collection. Each team was composed of one supervisor, one team leader and two data collector. Each team had at least one 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[5] to facilitate the work of the female data collectors at the community level. The teams were supervised by ACF Nutrition SMART Deputy Program manager and Public Nutrition Officer.

The entire teams received a 7-days training on the SMART survey methodology and all its practical aspects; conducted by Nutrition SMART Senior Program Manager and ACF Nutrition SMART Senior Deputy Program Manager. A standardization test was conducted over the course of 1day, measured 8 children, in order to evaluate the accuracy and the precision of the team members in taking the anthropometrics measurements. A one-day field test was conducted by the teams in order to evaluate their work in real field conditions. Feedback was provided to the team in regard to the results of the field test; particularly in relation to digit preferences and data collection. Refresher training on the anthropometric measurement and on the filling of the questionnaires and the household's selection was organized on the last day of the training by ACF to ensure overall comprehension before going to the field.

One field guidelines document with instructions and household definition and selection document was provided to each team member. All documents, such as local event calendar, questionnaires or consent forms was translated in local language, for better understanding and to avoiding direct translation during the data collection in the field. The questionnaires were back translated using a different translator and was pre-tested during the field test.

Daily data entry and analysis was done using ENA for anthropometric data, plausibility check, and

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

feedback was provided to the data collection teams. Anthropometric data was all directly entered into ENA while IYCF and other data was completed through an excel spreadsheet.

DATA ENTRY AND ANALYSIS

The anthropometric and mortality data (Annex3 &4) analyzed using ENA for SMART software 2011 version (9th July 2015). Survey results were interpreting in reference to WHO standards, analysis of other indicators to include IYCF, WASH, demographic and food security was done using Microsoft excel version 2010. Information generated from these indicators was used to explain the outcome indicators to include; nutritional status of under-five and mortality (CDR and U5DR). Contextual information generated from routine monitoring used in complementing survey findings.

INDICATORS: DEFINITION, CALCULATION and INTERPRETATION

Anthropometric Indicators: Definition of nutritional status of children 0-59 months

Acute Malnutrition

Acute malnutrition in children 0-59 months can be expressed by using 2 indicators; Weight for Height (W/H) or Mid Upper Arm Circumference (MUAC) as described below.

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[6]). 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.

During the field data collection, the weight-for-height index in Z-score was calculated on the field for each child in order to refer malnourished cases to appropriate center if needed. Moreover, the results were presented in Z-score using WHO reference in the final report. The classification of acute malnutrition based on WHZ is well illustrated in table 5.

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 risk of mortality. The MUAC is an indicator of malnutrition only for children greater or

equal to 6 months. Table below provides the cut-off criteria for categorizing acute malnutrition cases.

Table 5: MUAC cut-offs points for children aged 6-59 months

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

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 are automatically categorized as being severely malnourished, regardless of their weight-for-height index. The table below defines the acute malnutrition according to W/H index, MUAC criterion and oedema.

Table 6: Definition of acute malnutrition according to weight-for-height index (W/H), expressed as a Z-score based on WHO standards

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

Chronic Malnutrition

The height-for-age index (H/A)

The height-for-age measure indicates if a child of a given age is stunted and so if he is chronically

malnourished. This index reflects the nutritional history of a child rather than his/her current nutritional status. This is mainly used to identify chronic malnutrition. The same principle is used as for weight-for-height; 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 31.

Table 7: Cut offs 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

Mortality Indicator Calculation

The mortality indicators included all households, regardless of the presence of children. All members of the household were counted, using the household definition.

Crude death rate (CDR)

The number of persons in the total population that dies over specified period of time

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

Under-5 death rate (U5DR)

The number of children aged (0-5) years that die over specified period of time. Calculated as:

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

HEALTH

Beside anthropometric data, additional information was collected as follows:

1. Immunization status, deworming and vitamin A supplementation

Mothers/caretakers of all children was asked if children received all the necessary vaccinations, which was subsequently be verified by reviewing the vaccination card, if available. If the vaccination card was not available, then recall of the caregiver option was considered. The deworming and the Vitamin A supplementation of children was also recorded using samples.

2. Morbidity

Mothers/caretakers of children were asked if children had experienced an illness in the past 2 weeks. Acute respiratory infection, fever and diarrhea was recorded when symptoms according to the case definition are described by the caretaker.

3. Mothers nutritional status and Iron/Folate supplementation for pregnant

Women in childbearing age were assessed for their nutritional status based on MUAC using the cut-off of 230 mm.

WASH

1. Water storage and Usage

House hold heads was asked what type of container they use for storing drinking water and also how much water they used in the HH in the last 24 hours to assess the water use per person per day.

2. Hand washing practices

The mothers were asked on what occasions they wash their hands and also what they use to wash their hands to determine the hand washing practices in the surveyed area.

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 are described as follows.

1. Child ever breastfed

Proportion of children those have ever received breast milk. The indicator refers to proportion of children who have ever received breast milk. It's calculated by dividing the number of children born in the last 24 months who were ever breastfed by all Children born in the last 24 months. The indicator is based on historical recall, and a caregiver(s) is supposed to provide information of all children living or dead who were born in the last 24 months. This indicator was looking at the number of mothers who ever breast fed their children. This indicator was based on historic recall.

2. Timely initiation of breastfeeding

Proportion of children born in the last 23 months who were put to the breast within one hour of birth Proportion of children born in the last 23 months who were put to the breast within one hour of birth The indicator is calculated by dividing the number of children born in the last 24 months who were put to the breast within one hour of birth by children born in the last 24 months. The denominator and numerator include living children and deceased children who were born within the past 24 months. This indicator was also be based on historical recall

3. 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 Proportion of children who received colostrum (yellowish liquid) within the first 3 days after birth This indicator was look at the number of mothers with children 0-23 months who fed their children with Colostrum within the first 3 days after birth.

4. Exclusive breastfeeding under 6 months

Proportion of infants 0-5 months of age who are fed exclusively with breast milk Proportion of infants 0-5 months of age who are fed exclusively with breast milk It's calculated by dividing the number of all Infants aged 0–5 months who receive only breast milk during the previous day by total infants aged 0-5 months.

5. Continued breastfeeding at 1 year

Proportion of children 12 – 15 months of age who are fed with breast milk Proportion of children 12 – 15 months of age who are fed with breast milk it's calculated by dividing the total number of children aged 12–15 months who received breast milk during the previous day by total children aged 12–15 months

6. Introduction of solid, semi-solid or soft foods:

Proportion of infants 6-8 months of age who receive solid, semi-solid or soft foods Proportion of infants 6-8 months of age who receive solid, semi-solid or soft foods. It's calculated by diving the number of all Infants aged 6-8 months who received solid, semi-solid or soft foods during the previous day by total number of infants 6–8 months of age

7. Continued breastfeeding at 2 years

Proportion of children 20–23 months of age who are fed breast milk. Proportion of children 20–23 months of age who are fed breast milk. It's calculated by dividing the number of children aged 20–23 months who received breast milk during the previous day by total children aged 20–23 months.

Maternal Health and Nutrition

Women in childbearing age were assessed for their nutritional status based on MUAC measurements. The nutritional status of pregnant and lactating mothers was derived using the MUAC cut-off of 230 mm.

The indicator for iron-folate supplementation was derived from dividing the total number of pregnant mothers supplemented with Iron-folate in the last 90 days by total number of pregnant mothers.

Survey findings

Anthropometric results

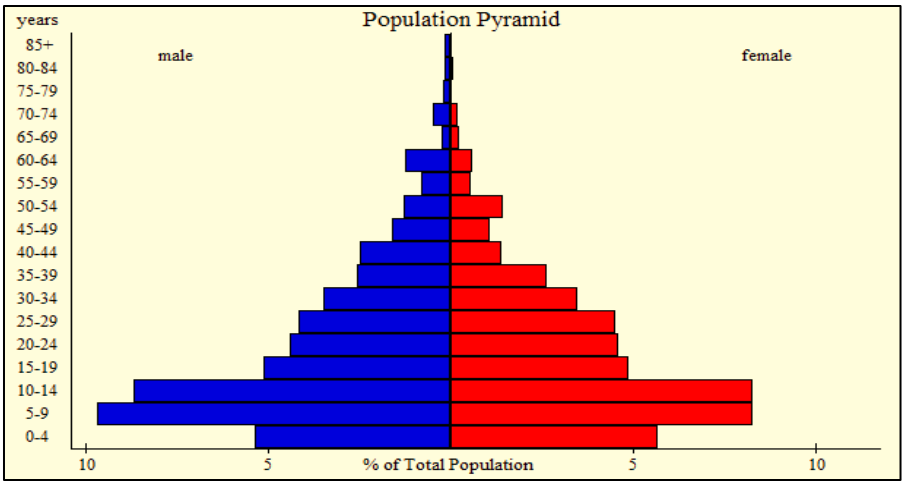
Under nutrition rates

Anthropometric results are presented with exclusive of SMART flags: Z score values ranging outside -3 to +3 for all three indexes (WHZ, HAZ and WAZ). The survey finding opened the distribution of the boys and girls in the sample were equality represented, the percentage of values flagged with SMART flags was WHZ: 2.8 %, HAZ: 2.2 % and WAZ: 1.0 %, age ratio of 6-29 months to 30-59 months: 0.88 (the value should be around 0, 85). P-Value=0.570 (as expected) for more details refer to (ANNEX 5) plausibility report.

Table 8: Distribution of age and sex of sample, Kapisa SMART, November 2016

	Boys		Girls		Total		Ratio
AGE (mo)	no.	%	no.	%	no.	%	Boy: girl
6-17	106	47.7	116	52.3	222	23.9	0.9
18-29	100	46.9	113	53.1	213	23.0	0.9
30-41	120	53.6	104	46.4	224	24.1	1.2
42-53	85	48.6	90	51.4	175	18.9	0.9
54-59	55	58.5	39	41.5	94	10.1	1.4
Total	466	50.2	462	49.8	928	100.0	1.0

Figure 1: Population age and sex pyramid, Kapisa SMART, November 2016



Quality of the anthropometric data

The anthropometric data were analyzed using ENA for SMART Software (version 2011, July, 2015 updated). The plausibility check report is available in Annex 5".

The summery of mean z score with Standard deviations, the design effects and number of the out of range data per index is indicating in table below.

Table 9: Mean z-scores, Design Effects and excluded subjects, Kapisa SMART, November 2016

Indicator	n	Mean z-scores ± SD	Design Effect (z-score < -2)	z-scores not available*	z-scores out of range
Weight-for-Height	902	-0.48±1.04	1.51	0	26
Weight-for-Age	919	-1.53±0.89	2.57	0	9
Height-for-Age	908	-2.11±1.12	1.48	0	20

Prevalence of acute malnutrition (Weight-for-height Z-scores (WHO 2006) and/or edema)

The sex and age disaggregated results are presented in Tables 7 and 8 respectively. The Prevalence of wasting is higher among boys as compared to girls. The younger Children (6-29 months) seem to be more affected than older (30-59 months). There was no edematous case.

Table 10: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or edema) and by sex, Kapisa SMART, November 2016.

	All n = 902	Boys n = 452	Girls n = 450
Prevalence of global malnutrition (<-2 z-score and/or edema)	(67) 7.4 % (5.5 - 9.9 95% C.I.)	(29) 6.4 % (4.5 - 9.1 95% C.I.)	(38) 8.4 % (5.7 - 12.3 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no edema)	(53) 5.9 % (4.2 - 8.1 95% C.I.)	(26) 5.8 % (4.0 - 8.2 95% C.I.)	(27) 6.0 % (3.8 - 9.4 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or edema)	(14) 1.6 % (0.9 - 2.7 95% C.I.)	(3) 0.7 % (0.2 - 2.9 95% C.I.)	(11) 2.4 % (1.3 - 4.5 95% C.I.)

The prevalence of edema is 0.0 %

Table 11: Prevalence of acute malnutrition by age, based on weight-for-height z-scores and/or edema, Kapisa SMART, Nov 2016

		Severe wasting (<-3 z-score)		Moderate wasting (>= -3 and <-2 z-score)		Normal (> = -2 z score)		edema	
Age (months)	Total no.	No.	%	No.	%	No.	%	No.	%
6-17	216	6	2.8	24	11.1	186	86.1	0	0.0
18-29	209	2	1.0	10	4.8	197	94.3	0	0.0
30-41	215	3	1.4	5	2.3	207	96.3	0	0.0
42-53	171	1	0.6	10	5.8	160	93.6	0	0.0
54-59	91	2	2.2	4	4.4	85	93.4	0	0.0
Total	902	14	1.6	53	5.9	835	92.6	0	0.0

Table 12: Distribution of acute malnutrition and edema based on weight-for-height z-scores, Kapisa SMART, 2016

	<-3 z-score	>=-3 z-score
edema present	Marasmic kwashiorkor No. 0 (0.0 %)	Kwashiorkor No. 0 (0.0 %)
edema absent	Marasmus No. 33 (3.6 %)	Not severely malnourished No. 895 (96.4 %)

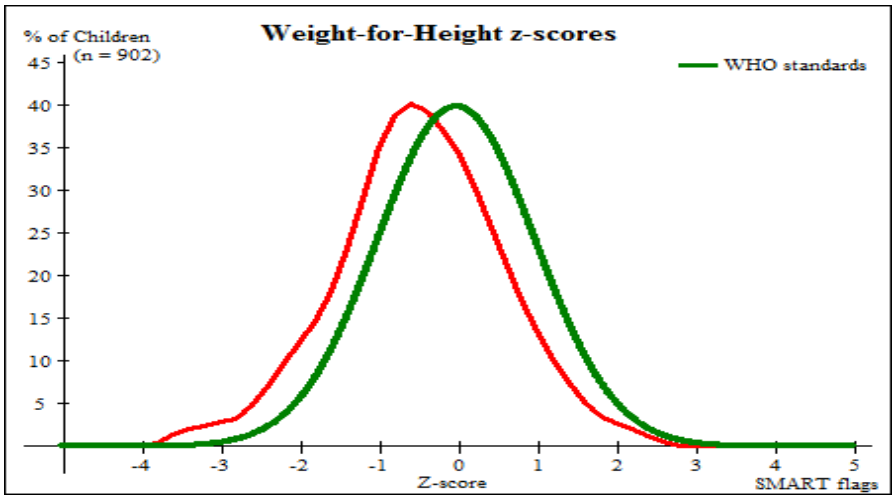


Figure 2: Distribution curves weight –for-height, Kapisa SMART, November 2016

MUAC cut-off classification and/or edema:

The prevalence of acute malnutrition based on MUAC cut-off is presented in Table 10. The younger children (6-29 months) were more affected than older (30-59 months)

Table 13: Prevalence of acute malnutrition based on MUAC cut off (and/or edema) and by sex, Kapisa SMART, November 2016

	All n = 928	Boys n = 466	Girls n = 462
Prevalence of global malnutrition (< 125 mm and/or edema)	(120) 12.9 % (9.9 - 16.8 95% C.I.)	(45) 9.7 % (6.6 - 13.9 95% C.I.)	(75) 16.2 % (12.8 - 20.4 95% C.I.)
Prevalence of moderate malnutrition (< 125 mm and >= 115 mm, no edema)	(97) 10.5 % (7.8 - 13.9 95% C.I.)	(37) 7.9 % (5.3 - 11.7 95% C.I.)	(60) 13.0 % (9.7 - 17.2 95% C.I.)
Prevalence of severe malnutrition (< 115 mm and/or edema)	(23) 2.5 % (1.6 - 3.8 95% C.I.)	(8) 1.7 % (0.7 - 3.9 95% C.I.)	(15) 3.2 % (1.9 - 5.4 95% C.I.)

Table 14: Prevalence of acute malnutrition by age, based on MUAC cut offs and/or edema, Kapisa SMART, November 2016

		Severe wasting (< 115 mm)		Moderate wasting (>= 115 mm and < 125 mm)		Normal (> = 125 mm)		edema	
Age(month)	Total no.	No.	%	No.	%	No.	%	No.	%
6-17	222	16	7.2	53	23.9	153	68.9	0	0.0
18-29	213	4	1.9	32	15.0	177	83.1	0	0.0
30-41	224	2	0.9	8	3.6	214	95.5	0	0.0
42-53	175	1	0.6	2	1.1	172	98.3	0	0.0
54-59	94	0	0.0	2	2.1	92	97.9	0	0.0
Total	928	23	2.5	97	10.5	808	87.1	0	0.0

Prevalence of Underweight (WHO 2006)

The underweight is defined by weight-for-age z-scores (WAZ). The sex and age disaggregated results are represented in table12.

Table 15: Prevalence of underweight based on weight-for-age z-scores by sex, Kapisa SMART, November 2016

	All n = 919	Boys n = 461	Girls n = 458
Prevalence of underweight (<-2 z-score)	(256) 27.9 % (23.3 - 32.9 95% C.I.)	(137) 29.7 % (24.1 - 36.1 95% C.I.)	(119) 26.0 % (21.4 - 31.1 95% C.I.)
Prevalence of moderate underweight (<-2 z-score and >=-3 z-score)	(200) 21.8 % (18.3 - 25.6 95% C.I.)	(103) 22.3 % (18.0 - 27.4 95% C.I.)	(97) 21.2 % (17.4 - 25.6 95% C.I.)
Prevalence of severe underweight (<-3 z-score)	(56) 6.1 % (4.4 - 8.5 95% C.I.)	(34) 7.4 % (4.8 - 11.2 95% C.I.)	(22) 4.8 % (3.1 - 7.4 95% C.I.)

Table 16: Prevalence of underweight by age, based on weight-for-age z-scores, Kapisa SMART, November 2016

		Severe underweight (<-3 z-score)		Moderate underweight (>= -3 and <-2 z-score)		Normal (> = -2 z score)		Oedema	
Age (month)	Total no.	No.	%	No.	%	No.	%	No.	%
6-17	219	12	5.5	50	22.8	157	71.7	0	0.0
18-29	211	14	6.6	52	24.6	145	68.7	0	0.0
30-41	222	16	7.2	40	18.0	166	74.8	0	0.0
42-53	174	8	4.6	44	25.3	122	70.1	0	0.0
54-59	93	6	6.5	14	15.1	73	78.5	0	0.0
Total	919	56	6.1	200	21.8	663	72.1	0	0.0

Prevalence of Stunting based on Height-for-Age Z scores (HAZ) (WHO 2006)

Chronic malnutrition (stunting) is defined by Height-for-age Z-scores (HAZ) <-2. The disaggregated results are represented in Table 14.

Table 17: Prevalence of stunting based on height-for-age z-scores and by sex, Kapisa SMART, November 2016

	All n = 908	Boys n = 454	Girls n = 454
Prevalence of stunting (<-2 z-score)	(494) 54.4 % (50.3 - 58.4 95% C.I.)	(270) 59.5 % (54.4 - 64.4 95% C.I.)	(224) 49.3 % (43.7 - 55.0 95% C.I.)
Prevalence of moderate stunting (<-2 z-score and >=-3 z-score)	(305) 33.6 % (30.5 - 36.8 95% C.I.)	(160) 35.2 % (31.0 - 39.8 95% C.I.)	(145) 31.9 % (27.6 - 36.6 95% C.I.)
Prevalence of severe stunting (<-3 z-score)	(189) 20.8 % (17.4 - 24.7 95% C.I.)	(110) 24.2 % (20.0 - 29.1 95% C.I.)	(79) 17.4 % (13.2 - 22.6 95% C.I.)

Table 18 : Prevalence of stunting by age based on height-for-age z-scores, Kapisa SMART, November 2016

		Severe stunting (<-3 z-score)		Moderate stunting (>= -3 and <-2 z-score)		Normal (> = -2 z score)	
Age (month)	Total no.	No.	%	No.	%	No.	%
6-17	216	20	9.3	67	31.0	129	59.7
18-29	207	83	40.1	74	35.7	50	24.2
30-41	217	56	25.8	88	40.6	73	33.6
42-53	174	24	13.8	56	32.2	94	54.0
54-59	94	6	6.4	20	21.3	68	72.3
Total	908	189	20.8	305	33.6	414	45.6

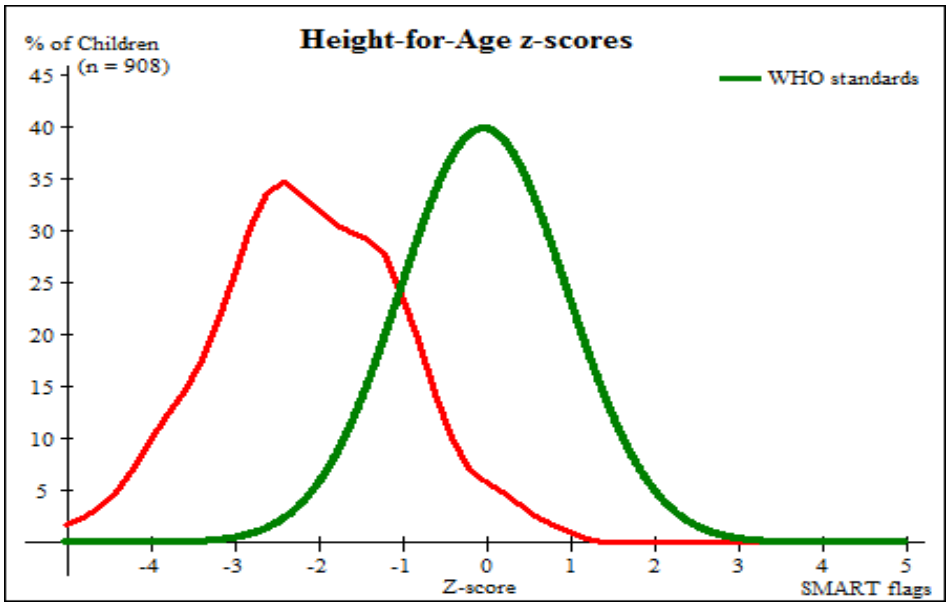


Figure 3: Gaussian distributed curve, HAZ, Kapisa SMART, November 2016

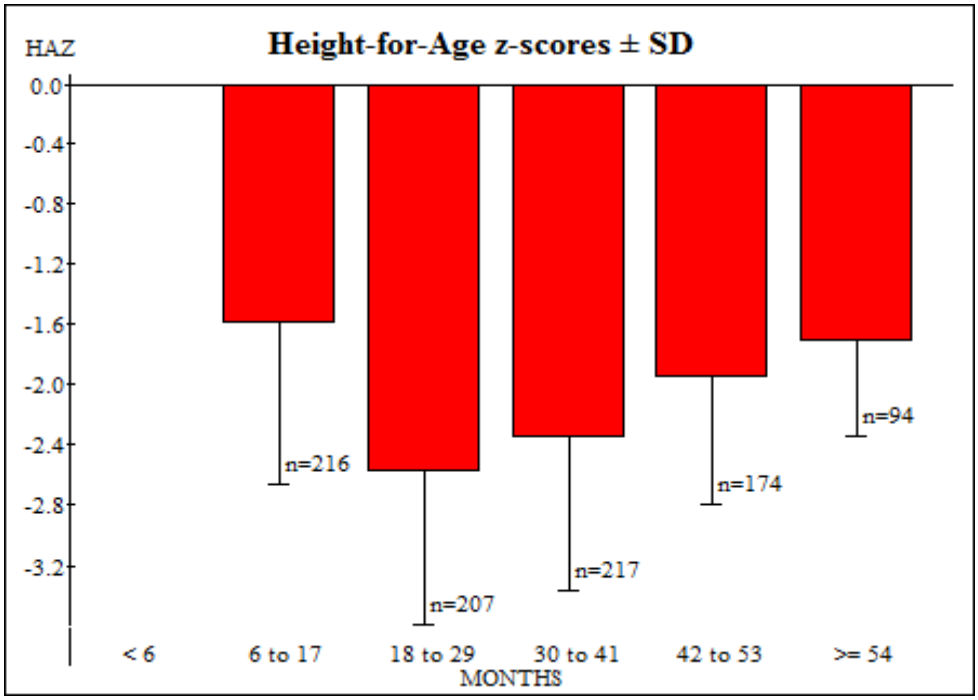


Figure 4: trend of stunting over the age distribution, Kapisa SMART, November 2016

CHILD HEALTH INDICATORS

Two weeks recall Morbidity (children 0-59 months)

Morbidity data was collected from 1002 respondents, in order to assess the occurrence of main illness during recall period (last two week prior to the survey). Below table indicates the episode and frequency of diseases among children 0- 59 Months.

Table 19: Morbidity two weeks recall period among children from 0-59 month, (n=1002), Kapisa SMART, November 2016

Parameter	Frequency	Results
Overall Morbidity in the past 2 weeks prior to the survey	672	67.1% (95% C.I, 64.2-70.0)
Acute respiratory Infection (ARI)	406	40.6% (95%C.I,37.5-43.6)
Fever	428	42.8% (95%.CI, 39.7-45.8)
Diarrhea	337	33.7% (30.7-36.6)
Others such as vomiting, jaundice, renal disease and skin disease	3	0.3% (95% C.I, 0.0-0.6)

Immunization (BCG, Measles and Polio)

Immunization, supplementation and deworming are proxy indicators informing community health outreach and health seeking behaviors (table below for all vaccination).

Table 20: Immunization age based on vaccination, Kapisa SMART, November 2016

Parameter	Class	Frequency	%
Measles Vaccination, children 9-59 (N=877)	Yes, card	229	26.2% (95% CI, 23.2-29.0)
	Both recalls and by cards	793	90.6% (95% CI, 88.5-92.4)

Polio (N=1002)	Yes, card	317	31.7% (95% CI, 28.8-34.5)
	both recall and by card	983	98.2 % (95% CI, 97.3-98.9)
BCG (N=1002)	Scar	959	95.7% (95% CI, 94.5-97.0)

Supplementation and Deworming

Supplementation and deworming are proxy indicators informing community Health outreach and health seeking behaviors. A summary of the results are presented in the below. See below.

Table 21: Vitamin A and Deworming coverage, Kapisa SMART, November 2016

	Class	Frequency	% with upper and lower interval
Vitamin A supplementation (6-59 months) (6 months recall) (N=927)	Yes	823	88.8%(95% CI, 86.5-90.6)
	No	103	11.2% (95% CI, 9.1-13.1)
	DK	1	0.1% (95% CI, 0.0-0.3
Deworming (6 months recall,(12-59) (n=807)	Yes	532	66.0% (95% CI, 62.7-69.6)
	No	275	34.1% (95% CI, 30.8-37.3)
	DK	0	0.0% (95% CI, 0.0-0.0)

IYCF INDICATORS

Information on optimal IYCF practices were collected from 381 children aged 0- 23 Months. Table below indicates the overall information on optimal IYCF practices.

Table 22: Infant and Young Child Feeding Practice, Kapisa, SMART, August 2016.

CORE INDICATORS	DEFINITION	N	%
Child ever breastfed (N=381)	Proportion of children who have ever received breast milk	372	97.6% (95% CI, 96.1-99.2)
Timely initiation of breastfeeding (N=381)	Proportion of children born in the last 23 months who were put to the breast within one hour of birth	307	80.1% (95% CI, 76.6-84.5)
Provision of colostrum within first 3 days (N=381)	Proportion of children who received colostrum (yellowish liquid) within the first 3 days after birth	353	92.7% (95% CI, 90.0-95.3)
Still breast feeding at 1 year (N=76)	Proportion of children 12-15 months of age who are fed breast milk.	70	92.1% (95% CI, 86.0-98.2)
Exclusive breast feeding (N=75)	Proportion of infants 0-5 months of age who are fed exclusively with breast milk.	61	81.3% (95% CI, 72.5-90.2)
Introduction of solid, semi-solid or soft foods (N=50)	Proportion of infants 6-8 months of age who receive solid, semi-solid or soft foods.	17	34.0% (95% CI, 20.9-47.1)

MATERNAL NUTRITION STATUS AND HAND WASHING

Women's of child barring age (15- 49 years) were surveyed during Kapisa SMART survey in order to assess their Physiological and Nutrition status based on following key indicators

- Physiological status
- Nutritional status based on MUAC cut-off
- Iron/folate for pregnant women (at least once up to the visit of the survey team)

Table below represents the above mentioned key indicators.

Table 23: Physiological status of women of reproductive age (15 – 49 years), (n=672), Kapisa SMART survey, November 2016

Status	Frequency	Results with upper and lower interval
Pregnant	131	19.5% (95%CI, 16.5-22.5)
Lactating	333	49.6% (95%CI, 45.8-53.3)
Non-pregnant & non-lactating	208	31.0% (95%CI, 27.5-34.4)

Table 24: Nutritional status of women of reproductive age based on mid-upper arm, Kapisa SMART, November 2016

MUAC cut offs (N=464)	Frequency	%
Global acute malnutrition MUAC<230 mm	77	16.5% (95%CI13.2-20.0)
Moderate acute malnutrition MUAC≥210mm and <230mm	71	15.3 % (95% CI, 12.0-18.6)
Severe acute malnutrition MUAC<210mm	6	1.3% (95%CI, 0.3-2.3)

Table 25: Iron folate for pregnant women based on available answers, (n=131), Kapisa SMART November 2016

Iron-folate for PLW	Frequency	%
Yes	74	56.5% (95%CI, 48.0-65.0)
No	46	35.1% (95% CI, 26.9-43.3)
Don't know	11	8.4% (95%CI, 3.6-13.1)

Table 26: ANC visits in the last pregnancy, (N=672), Kapisa SMART. November 2016

ANC visited by WHOM	Frequency	%
Health professional	469	69.8% (95% CI, 66.3-73.3)
Traditional birth attendant	7	1.1% (95%CI, 0.03-1.8)
Community health worker	0	0.0% (95%CI, 0.0-0.0)
Relative/Friends	2	0.3% (95%CI, 0.0-0.7)
No visited during pregnancy	194	28.9% (95%CI, 25.4-32.3)

Hand washing practices before and after events indicated in table below.

Table 27: Hand washing practice, Kapisa SMART, November 2016

Hand Washing care takers (n=672)	Frequency	%
Only water	536	79.8% (95%CI, 50.4-56.6)
Soap	503	74.9% (95%CI, 71.6-78.1)
Wash both hands	577	85.9% (95%CI, 83.2-88.5)
Rubs hands together at least three times	443	65.9% (95%CI, 62.3-69.5)
Dries hands hygienically by air-drying or using a clean cloth	357	53.1% (95% CI, 49.4-56.9)

Table 28: Hand washing practice at 5 critical moments, (n=672), Kapisa SMART, November 2016.

Response	Frequency	%
Wash hands at all 5 critical moments	257	38.3% (95%CI, 34.6-41.9)
After Toilet/latrines	645	96.0%(95% CI, 94.5-97.5)
Before cooking	491	73.1%(95%CI, 69.7-76.4)
Before eating	577	85.9%(95% CI, 83.2-88.5)
After taking children to the toilet	477	71.0% (95%CI, 67.6-74.4)
Before feed child	301	44.8% (95% CI, 41.0-48.6)

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

NB: As this information was largely knowledge/recall based, there is no practical verification process to know if mothers/caretakers actually practiced hand washing at all 5 critical points or if they were largely recalling times to which they were previously informed

HOUSEHOLDS INFORMATION

Crude and Under 5 Mortality Rates

Mortality was included in the survey, with basic data collected at the household level, using the retrospective mortality methodology, with a 95 days (6th July to 11th Oct 2016 recall period). Heads of household were the main responders, from all households included in the survey, a total of 666 households, regardless if the households had children or not. Crude Mortality Rates and age group evaluation of year's mortality rates are presented in Table below).

The crude and under five mortality rates were below the WHO emergency levels[7].

Table 29: Mortality rates survey findings, Kapisa SMART, November 2016

	Crude Date Rate (95 % CI)	Design effect
Overall	0.54 (0.33-0.90)	1.46
Sex		
Male	0.86 (0.53-1.41)	1.15
Female	0.15(0.05-0.46)	1.00
Years		
0-4	0.69(0.32-0.1.50)	1.00
5-11	0.20(0.05-0.82)	1.00
12-17	0.17(0.02-1.26)	1.00
18-49	0.31(0.11-0.88)	1.35
50-64	2.21(0.70—1.71)	1.04
65-120	10.27(3.60-26.13)	1.54

[7] WHO's emergency thresholds of CMR 2/10,000/day and U5MR 4/10,000/day respectively.

Demography

The mortality questionnaire in SMART is designed in a way that some additional useful demographic data can be withdrawn. Summary is available in Table below. A total of 4468 Individuals were surveyed and 582 were reported to have children under age of 5 years.

Table 30: Short summary of demographics, Kapisa SMART, November 2016

Indicator	Value
Average HH size	6.7%
Children under 5	21.2%

Water treatment

Table 31: Percentage of households with access to water treatment (n=666)

WTR treatment:	Frequency	%
Boil	7	2.9%
Chlorine	30	12.4%
Strain it through a cloth	88	36.5%
Water Filter	114	47.3%
Stand and settle	2	0.8%

Figure 5: Household level daily Improved Water Sources, (N= 241)

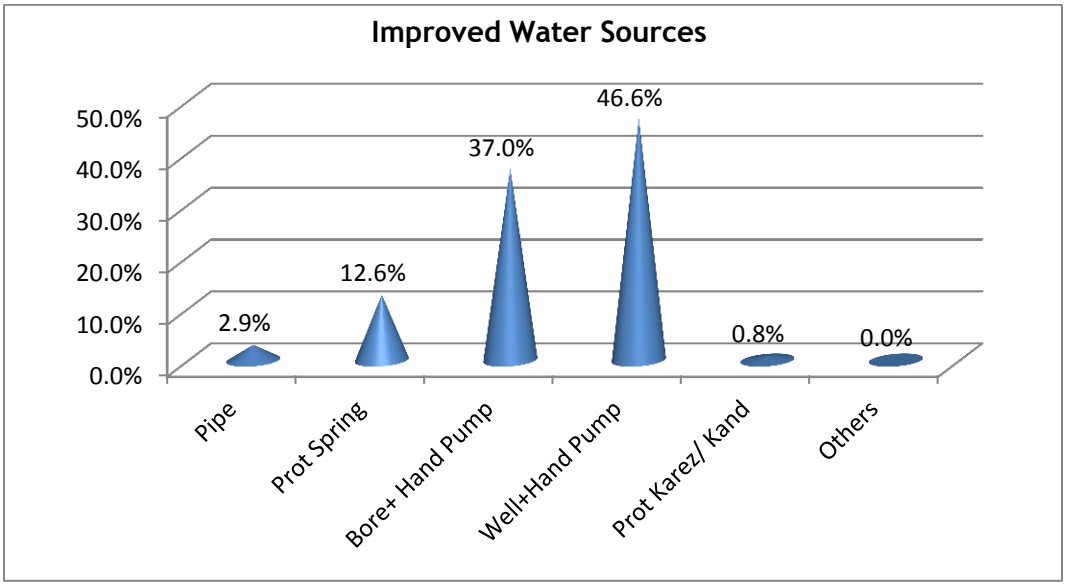
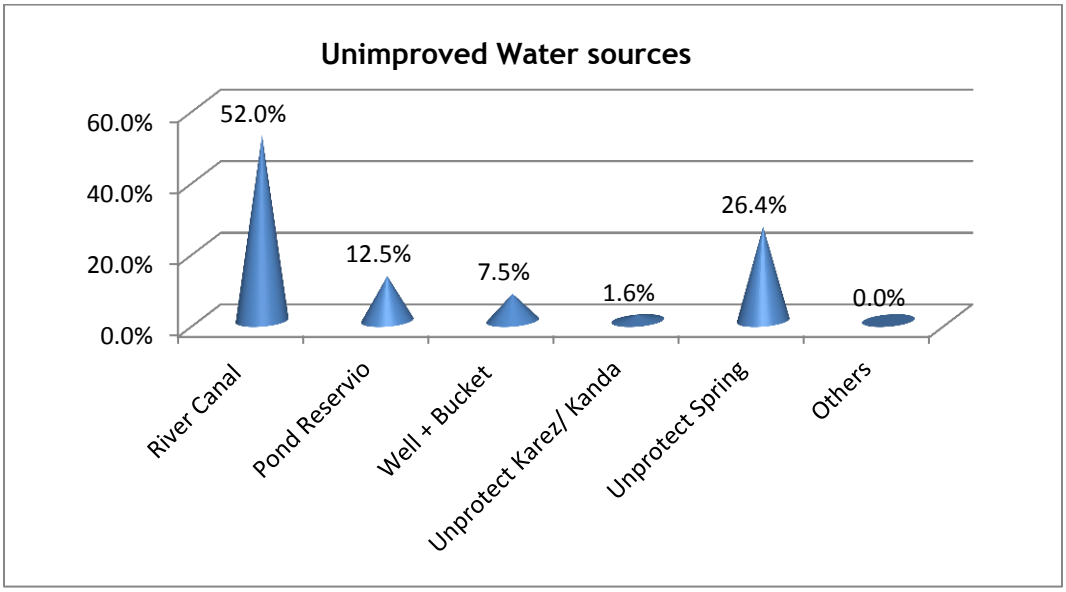


Figure 6: Household level daily Unimproved Water Sources, (N=425)



Food Security and lively hood

Food Consumption Scores and Food Based Coping Strategies

Food Consumption Scores and Food Based Coping Strategies Food security exists when all people, at all times have physical, social and economic access to sufficient, safe and nutritious food for a healthy and active life. In this survey, food consumption based on the Food Consumption Score (FCS)[8] as a description for the current short-term household food security situation is triangulated with the food-based or reduced Coping Strategy Index (rCSI)[9] to provide an indication of the food security status of the household. The triangulation of these two food security proxy indicators, instead of only food consumption, allows for capturing the interaction between household food consumption and coping strategies adopted, and hence, more properly reflects the food security situation in Kapisa province.
As a result, households having poor food consumption with high or medium coping and those with borderline food consumption but with high coping are considered as *severely food insecure*. Households having poor food consumption with low coping, households having borderline food consumption with medium coping and those having acceptable consumption but with high coping are considered as *moderately food insecure*. Households having borderline or acceptable food consumption with low or medium coping are considered as *food secures (Table)*[10].

Food consumption groups (based on FCS)	Coping group (based on CSI)		
	High coping	Medium coping	No or low coping
Poor	Severely food insecure	Severely food insecure	Moderately food insecure
Border line	Severely food insecure	Moderately food insecure	Food secure
Acceptable	Moderately food insecure	Food secure	Food secure

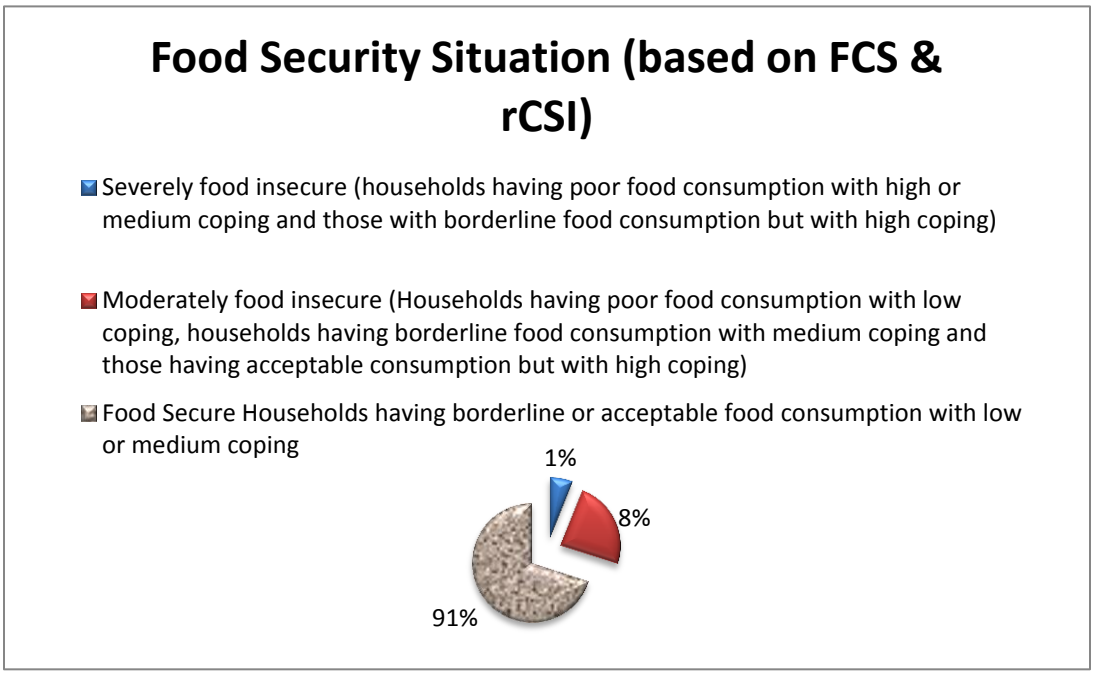
[8] The Food Consumption Score (FCS) is an acceptable proxy indicator to measure caloric intake and diet quality at household level, giving an indication of food security status of the household if combined with other household access indicators. It is a composite score based on dietary diversity, food frequency, and relative nutritional importance of different food groups. The FCS is calculated based on the past 7-day food consumption recall for the household and classified into three categories: poor consumption (FCS = 1.0 to 28); borderline (FCS = 28.1 to 42); and acceptable consumption (FCS = >42.0). The FCS is a weighted sum of food groups. The score for each food group is calculated by multiplying the number of days the commodity was consumed and its relative weight.

[9] The reduced Coping Strategy Index (rCSI) is often used as a proxy indicator of household food insecurity. Households were asked about how often they used a set of five short-term food based coping strategies in situations in which they did not have enough food, or money to buy food, during the one-week period prior to interview. The information is combined into the rCSI which is a score assigned to a household that represents the frequency and severity of coping strategies employed. First, each of the five strategies is assigned a standard weight based on its severity. These weights are: Relying on less preferred and less expensive foods (=1.0); Limiting portion size at meal times (=1.0); Reducing the number of meals eaten in a day (=1.0); Borrow food or rely on help from relatives or friends (=2.0); Restricting consumption by adults for small children to eat (=3.0). Household CSI scores are then determined by multiplying the number of days in the past week each strategy was employed by its corresponding severity weight, and then summing together the totals. The total rCSI score is the basis to determine and classify the level of coping: into three categories: No or low coping (rCSI= 0-9), medium coping (rCSI = 10-17), high coping (r ≥18).

[10] Adopted from WFP (Kabul Informal Settlement (KIS) Winter Needs Assessment FINAL REPORT ON FOOD SECURITY, December 8th, 2015)

Food security situation

Based on triangulation of Food Consumption Score (FSC) with the food-based or reduced Coping Strategy Index (rCSI), the survey finding shows 1% of households have severely food insecurity and 8 % of households were moderately food insecurity see figure below for more details.



Reduced Coping Strategy Index[11]:

The Food Based Coping Strategy Index is based on measures of the frequency of use of food deprivation, such as the recourse to cheaper food, reductions of the quantity of meals, the act of borrowing food, as well as alterations in food distribution within the household to favor children. Each strategy is weighted as per its severity with borrowing food and altering the distribution of food within the household regarded as the most severe strategies. Categories are then defined based upon these scores varying from low coping (0-9) to medium coping (10-17) and high coping (>18).

- 0.9% of HHs with a high level of coping (rCSI ≥18 score).
- 4.5% of HHs with a medium level of coping (rCSI= 10-17 score).
- 94.6% of HHs with No or Low level coping (rCSI=0-9 score).

[11] Adopted from WFP *(Kabul Informal Settlement (KIS) Winter Needs Assessment FINAL REPORT ON FOOD SECURITY, December 8th, 2015)*

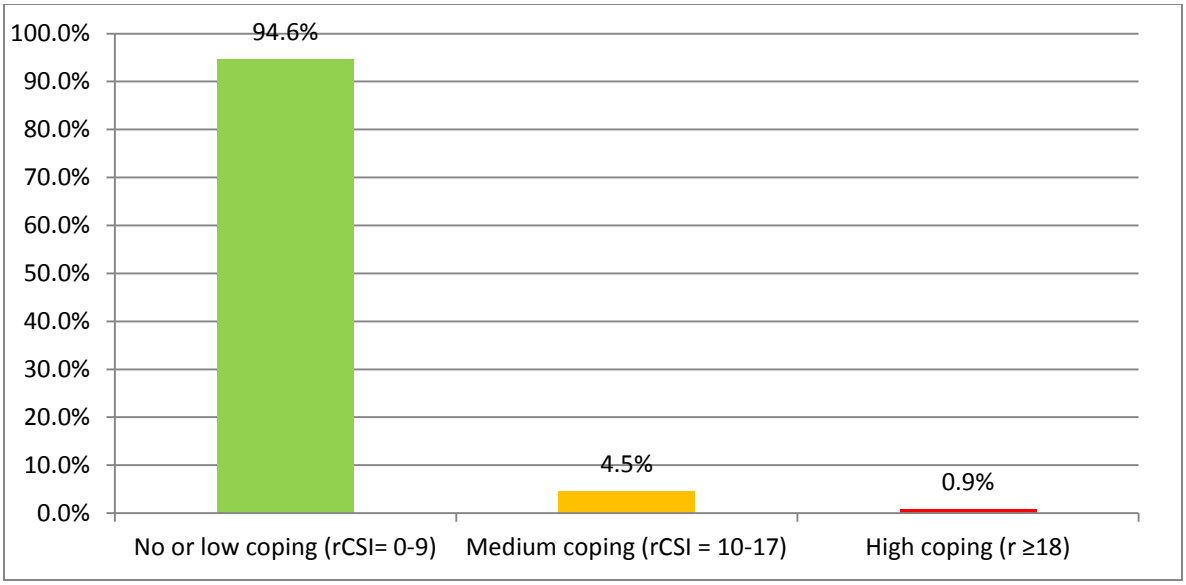
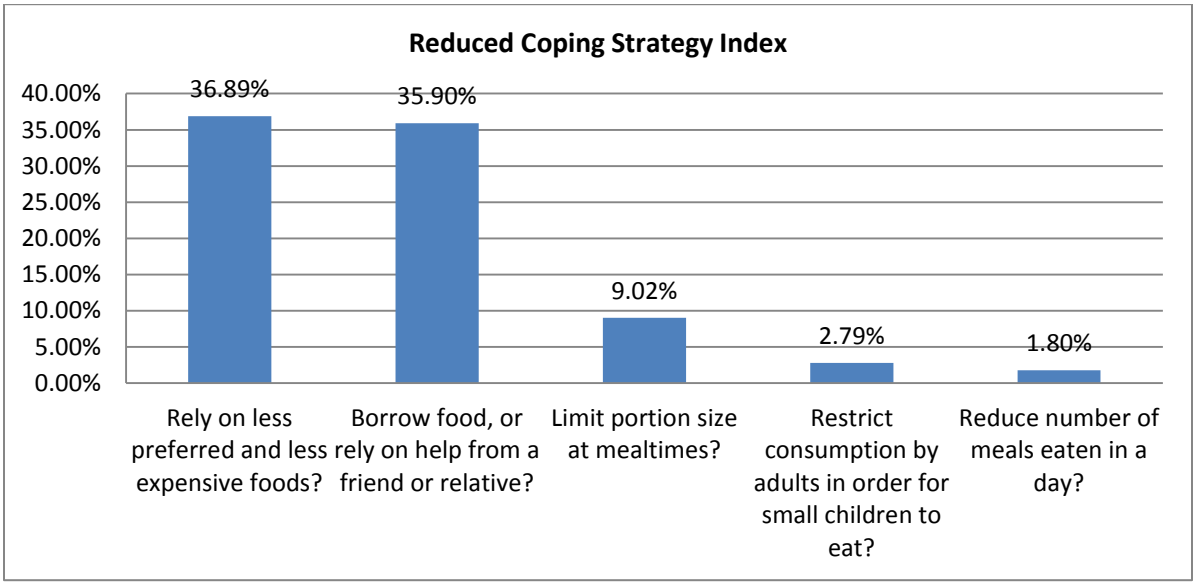
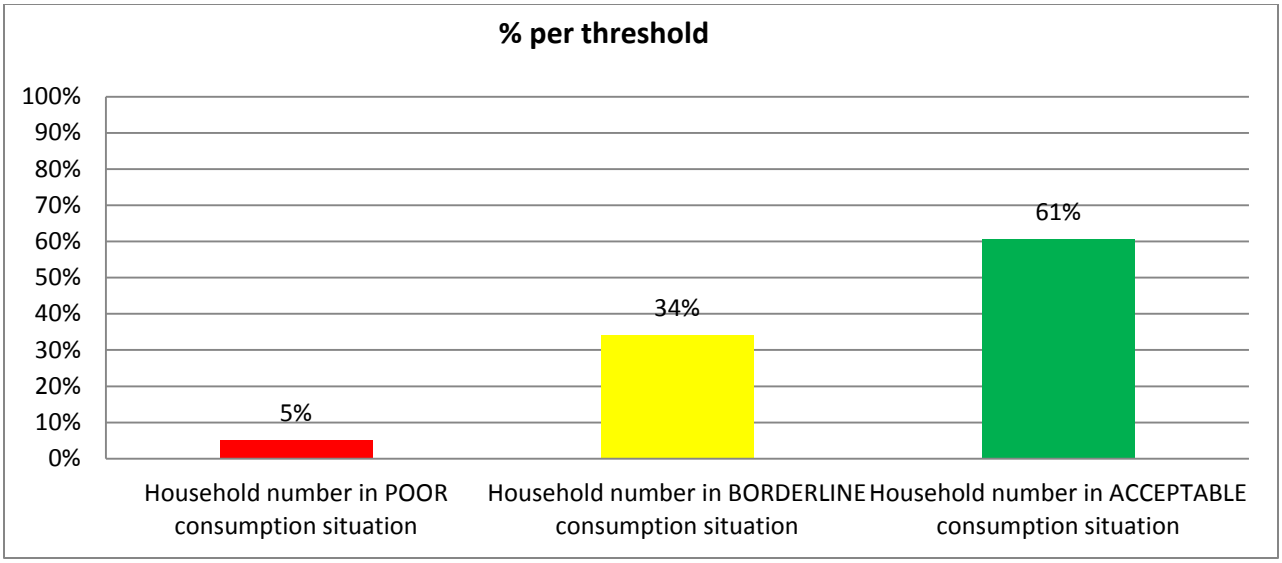


Figure 7: Reduced coping strategy index



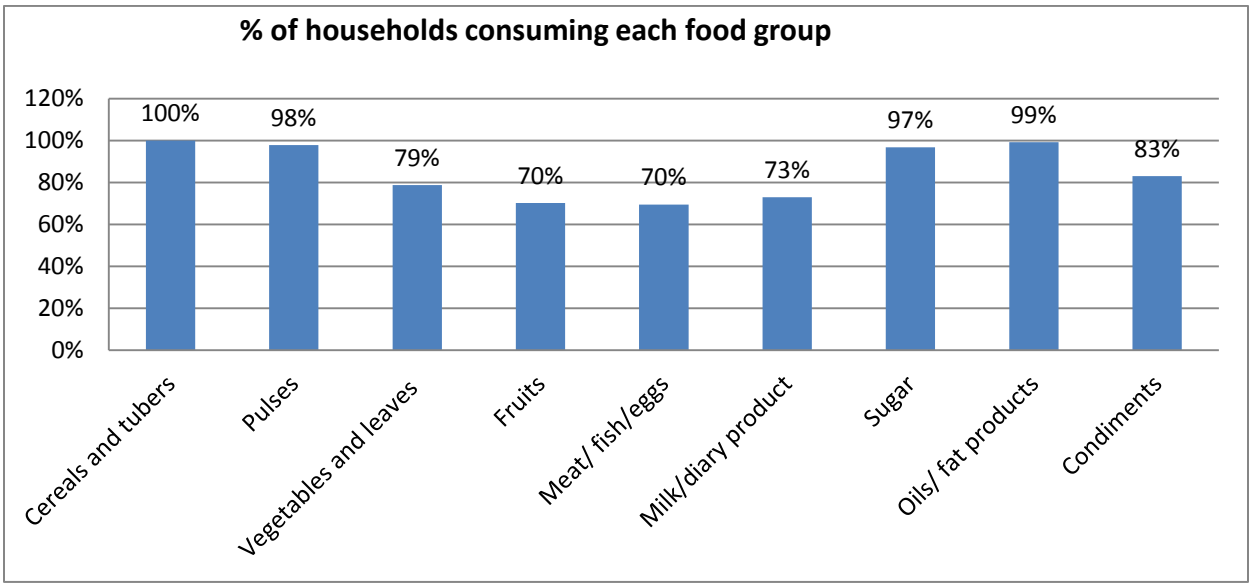
Food Consumption Scores:

Food Consumption Scores are the sum of the frequency of consumption (in the 7 days prior to the interview) of each type of food item (cereal, pulses, vegetables, meat fish and eggs, dairies, oil and sugar) weighted by their nutritional value (proteins are weighted 4, cereals 2, pulses 3, and vegetables and fruits 1, while sugar is weighted 0.5). Households are then grouped into “Poor” food consumption (1.0-28), “Borderline” (28.01 – 42) and acceptable (above 42). Food consumption groups are a proxy of food consumption and reflect both the frequency and quality of food consumption.



- 5% households surveyed have Poor consumption scores (FCS = 1.0 to 28).
- 34% households surveyed have Border line consumption scores (FCS = 28.1 to 42).
- 61% households surveyed have acceptable food consumption scores (FCS = >42.0).

Figure 8: Households consuming each food group



DISCUSSIONS

Nutrition

The survey findings revealed that the prevalence of Global Acute Malnutrition (GAM) based on weight-for-height z-scores (WHZ) was at 7.4 % (5.5 - 9.9 95 % CI) indicating a "poor" nutrition situation based on WHO classification, SAM was 1.6 % (0.9- 2.7 95% CI), The province also reported some of the highest cases of morbidity and is indicating the possible contribution of illness due to poor nutrition situation, from other site the food insecurity is the other powerful causes of the malnutrition and the prevalence of GAM based on MUAC cut-offs was 12.9 % (9.9 - 16.8 95% CI) can be classified as "serious" according to WHO classification of acute malnutrition. SAM prevalence by WHZ and MUAC was at 1.6% and 2.5% respectively. Although for comparing this survey results for GAM is no different from NNS 2013 as reported it is important to consider for the GAM rates

If both criteria are combined, overall rate of children likely to be eligible for SAM and MAM management rises to 14.9% (95% CI 12.6-17.9). SAM combined rates is estimated to be 5.0% (3.6-6.4 95% CI).It's recommended to use the combined rates for estimation of GAM and SAM in the province for program design and caseload calculation. The acutely malnourished children based on MUAC at community screenings level are not enough to detect all acutely malnourished children eligible for treatment according criteria stipulated in Afghanistan IMAM Guidelines. This has to be however further investigated. See figure 10 in the actual acute malnutrition camper WHZ <-2 Z score with MUAC <125 mm is significant different.

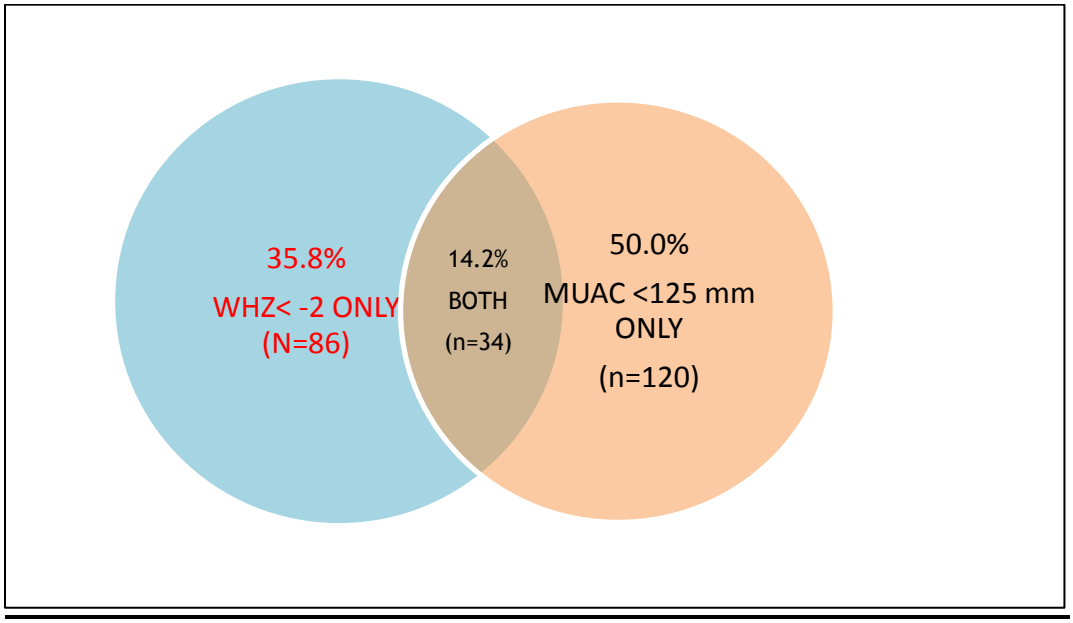


Figure 9 : Overlapping WHZ<-2 and MUAC<125, Kapisa SMART, Nov. 2016

The survey finding indicates the younger children (6-29 months) are more affected than older children (30-59 months), the younger age group children includes the poor breastfeeding age (6-23.9 months) during the child experiences different challenges in term of quality and quantity of food consumed as well as frequent infection resulting from poor IYCF practices.

Date rates

Crude Death Rate and Under-five Death rate was at 0.54/10,000/day and 0.69/10,000/per day. The rates are both below SPHERE emergency thresholds. The causes of the death were not collected in the survey due to sensitization of the community.

IYCF practices

Although high proportion of (80.1%) of children from 0-23.9 months was timely breastfed in one hour of breastfed dings at the time of assessments and 34.0 % introduced solid, semisolid and soft foods at 12-15 months of the children, from other hand exclusive breasting was 80.3% for proportion of infants. Early introduction to complementary foods or failing to exclusively breastfeed a child exposes the child to unhygienic feeding conditions and increases their vulnerability to infection and other illnesses. This is especially a real risk in such an environment where water is not treated (15.3%) only treated with boiled and chlorinated, from other site hand-washing practice with soap was not a common practice on 5 critical time (38.3%) and leading to high diarrhea incidences (33.7%).

Risk factors

Morbidity, immunization, supplementation and deworming

The UNICEF conceptual framework of malnutrition can be used to explain the probable causes of under nutrition in this area. Disease weakens an individual immune system causing them to have other side effects such as reduced food intake and diarrhea. In this province, more than half of sampled children suffered from one or two form of illnesses or another (67.1%) such us diarrhea, fever and Ari / cough. Through discussion with health workers, diarrhea cases amongst these ages' groups were mainly reported to be managed through home treatment. The use of micronutrients supplementation such us vitamin A supplementation in 6 months prior to the survey was good with only 88.8% of children reported to have received vitamin A supplementation. One of the core functions of supplementation is to boost an individual immunity hence the importance of the supplementation. Awareness on vitamin A is important at health facilities and community level to keep the supplementation (WHO recommended SPHERE target of 80%). It is important to note the immunizations of the children are very important, in this survey finding shows measles 90.6%, BCG scare was 95.7% and polio was 98.2% that excellent immunization

coverages illustrate the hindrance in accessing the basic health services in the area, with coverage bellow the WHO thresholds of > 80% and need to keep the immunization coverages by deferent channels.

CONCLUSION

In conclusion of the survey has indicated that there is a problem of malnutrition in Kapisa province. From the results presented above it is notable that although the different measures of malnutrition (WHZ and MUAC) are indicating a poor and serious nutrition situation respectively, a combination of these results/measures indicate that the number of cases found malnourished is serious in the province. It is also noted that cases of child morbidity are high in the province; more than 1 in 2 children was reported ill.

Stunting prevalence in Kapisa can be considered to be serious. Although for comparing this survey results for stunting significant high from NNS 2013 as a reported it is important to consider for the stunting situation in the province. Poor micronutrient supplementation and deworming, low maternal nutritional status as observed in Kapisa province if not addressed can contribute to increasing the levels of chronic malnutrition. The fact that chronic malnutrition is not given the attention in the health facilities could be a factor exacerbating the situation. Currently there is no clear guidance in Afghanistan on how to address chronic malnutrition.

Poor breastfeeding and complementary feeding habits has been known to expose children to morbidity, malnutrition and even death. The reduced food intake among the children and the household in general was blamed on high food prices in the market and the reduced production of milk and animal products in the area.

Overall the key underlying factors for acute malnutrition are child care ,lack of sanitation in health facilities, poor hand washing practice, lack of safe drinking water(most of the people are using un improved water for drinking in the province),Feeding practice for children are poor. Integrated approaches should therefore be under taken to reduce risk factors such as poor child take care, unsafe drinking water, lack of sanitation and hygiene services by community awareness and use different approach in the community and improved coverage of health programs would play a critical role in both preventing and treating diseases.

In addition, daily stress (such as poverty, unemployment, limited services...) and a series of traumatic situations (conflict, insecurity, loss…) have a clear impact on the mental health conditions of people. This fragile psychosocial condition has a clear influence on child nutritional and health status.

On the other hand 5% of households were found in this survey to have poor food consumption and this can be linked with malnutrition of children and maternal nutrition status.

SUMMARY RECOMMENDATION

Following recommendation can be drawn based on the preliminary findings:

Under nutrition

- Prioritize activities addressing chronic malnutrition, high stunting rates, at the community level, through food security/agricultural, nutrition cooking demonstrations, IYCF, appropriate supplementation, growth monitoring, and improving maternal health and nutrition.
- Reinforcing health education including home management of diarrhea and ARI, hygiene at both facility and community levels.
- To strength the TSFP program and increase referral system through CHWs in the community level.

Child health and immunization

- Promote proper care seeking practice through health education at health facilities and community level.
- Strength health education based on seasonal condition.
- Raising awareness of mothers on micronutrient supplementation and deworming campaigns;

Maternal nutrition status and IYCF

- Continue up SFP to address PLW having MUAC <230 mm and potentially prevent child under nutrition
- To strength awareness of iron folate supplementation.
- To strength referral system for Antenatal care and health seeking visits during pregnancy trough CHWs in the community level.

Food security and livelihoods

For the prevention of malnutrition:

- Short term Employment opportunities such as Food for Work or Cash for Work are the most likely to alleviate food insecurity in the short to mid-term. In the longer term, asset endowment, skills endowment (for example: distribution of home gardening kits and poultry kits to the most vulnerable population in order to enhance their food security and livelihoods) and safety nets preventing the resort to negative coping strategies will be necessary to reverse the trend of increasing poverty rates[12].

- As labor opportunities are reducing, smallholders are more reliant on their land and need to make the most out of it to ensure their basic food needs. Holding on average 3 jeribs of land, their widespread resort to damaging coping strategies (such as decreasing fertilizer expenditure or not saving enough

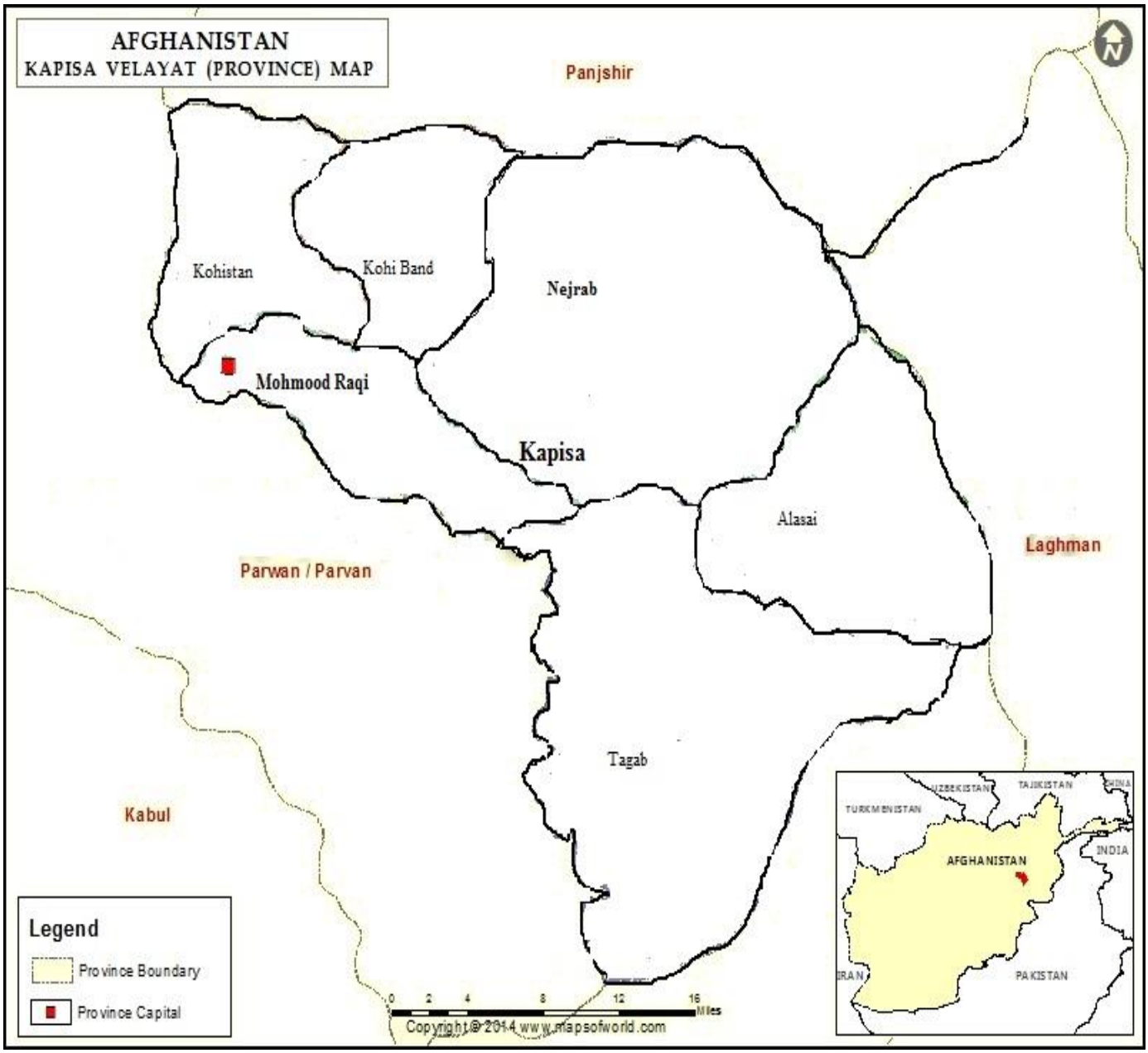
[12] SFSA 2016

seeds) impedes them to take full advantage of their land. Large gains in food security can be achieved by providing the necessary inputs.

- Providing information about the usage of balance food.
- To change the behaviors of community in food consumption.

ANNEXES

Annex: 1 Ghor Physical Map



Annex 2: selected clusters

قریه	Cluster	نفوس مجموعي	نام مرکز صحی	نام ولسوالی	ملاحظات
ده باباعلی	1,2	8630	شفاخانه عبدالصبور شهید	محمود راقی	
سورغندی	3	4200	شفاخانه عبدالصبور شهید	محمود راقی	
مراد خوجه	4	7500	شفاخانه عبدالصبور شهید	محمود راقی	
خدا بارخیل	5	1100	شفاخانه عبدالصبور شهید	محمود راقی	
کوره تاز علیا	6	1300	شفاخانه عبدالصبور شهید	محمود راقی	
مظفر	7	980	مرکز صحی اساسی نواباد	محمود راقی	
باغ امیر	8	870	مرکز صحی اساسی نواباد	محمود راقی	
قاضی خیل	9	600	مرکز صحی اساسی محمد عمرخیل	محمود راقی	
کشیکتان	10	1700	مرکز صحی اساسی محمد عمرخیل	محمود راقی	
بادم علی	11	2480	مرکز صحی اساسی شوخی	محمود راقی	
دهنه سفلی	12	489	مرکزصحی جامه قزاق حصه دوم	حصه دوم	
ته قول	13	406	مرکزصحی جامه قزاق حصه دوم	حصه دوم	
شیرک پیرک علیا	14	1031	مرکزصحی جامه قزاق حصه دوم	حصه دوم	
پایان جمالاغه	15	1557	مرکزصحی جمالاغه حصه دوم	حصه دوم	
قلعه ریگی	16	1270	مرکزصحی جمالاغه حصه دوم	حصه دوم	
حاجی خیل	RC	840	مرکزصحی جامع کوهبند حاجی خیل کوهبند	کوهبند	
قلعه خیل	17	870	مرکزصحی جامع کوهبند حاجی خیل کوهبند	کوهبند	
کوتلی	RC	1500	مرکزصحی جامع کوهبند حاجی خیل کوهبند	کوهبند	
خوشحال حیل	18	595	مرکزصحی اساسی درنامه کوهبند	کوهبند	
شیروانی عیلی	19	1257	شفاخانه ولسوالی نجراب	نجراب	
جورغل	20	1298	شفاخانه ولسوالی نجراب	نجراب	
یا سین زای علیا	RC	1560	شفاخانه ولسوالی نجراب	نجراب	

سابات	21	2486	شفاخانه ولسوالی نجراب	نجراب	
لعل بیگ خیل	22	520	مرکزصحی اساسی دره کلان نجراب	نجراب	
دره فرخشاه	23	925	مرکزصحی اساسی دره کلان نجراب	نجراب	
نغری	24	1650	مرکزصحی اساسی دره کلان نجراب	نجراب	
سرغی	25	1750	مرکزصحی اساسی دره غوث نحراب	نجراب	
کمسار	26	1430	مرکزصحی اساسی دره غوث نحراب	نجراب	
اغا	27	1288	مرکزصحی اساسی دره غوث نحراب	نجراب	
چمن	28	525	مرکزصحی اساسی دره پته نحراب	نجراب	
گلین	29	1300	مرکزصحی اساسی دره پته نحراب	نجراب	
دا نا خیل	30	5100	مرکز صحی اساسی اله سای	اله سای	
لکه خیل	31	3100	مرکز صحی اساسی اله سای	اله سای	
پتی خیل	32	680	مرکز صحی اساسی اله سای	اله سای	
حسن آباد	33	2650	موبایل سب سنتر حسن آباد اله سای	اله سای	
چو ره خیل	34	895	مرکز صحی اساسی اشپی اله سای	اله سای	
صرو جل	35	2300	مرکز صحی اساسی اسکین اله سای	اله سای	
قریه افغانا	36	660	مرکزصحی اساسی جمالاغه	حصه اول	
ده نو	37	1520	مرکزصحی اساسی جمالاغه	حصه اول	
ابلاغ خیل	38	224	مرکزصحی اساسی سنجن حصه اول	حصه اول	
علی مرا خیل	39	790	مرکزصحی اساسی سنجن حصه اول	حصه اول	
ده نو	40	1245	مرکزصحی جامع شیر خان خیل خصه اول	حصه اول	
غوچک	41	1950	مرکزصحی جامع شیر خان خیل خصه اول	حصه اول	
نما ز جای	42	2700	مرکزصحی جامع شیر خان خیل خصه اول	حصه اول	
کاسابه علیا	43	350	مرکزصحی جامع اشترگرام حصه اول	حصه اول	
لطیف خیل علیا	44	955	مرکزصحی جامع اشترگرام حصه اول	حصه اول	
تپه زار	45	2450	مرکزصحی جامع اشترگرام حصه اول	حصه اول	
راضی خیل	46	580	مرکزصحی جامع خمزرگر خصه اول	حصه اول	
میر عزیز خیل	47	700	مرکزصحی جامع خمزرگر خصه اول	حصه اول	
ده خمزرگر	48	1319	مرکزصحی جامع خمزرگر خصه اول	حصه اول	
شیر خیل	RC	2450	بیست بستر قورغل ولسوالی تگاب	تگاب	
اکا خیل	RC	3980	بیست بستر قورغل ولسوالی تگاب	تگاب	

Annex 3: Plausibility Report

Plausibility check for: Kapisa_ DATA_SET_NOV_2016_Afghnistan.as

Standard/Reference used for z-score calculation: WHO standards 2006

(If it is not mentioned, flagged data is included in the evaluation. Some parts of this plausibility report are more for advanced users and can be skipped for a standard evaluation)

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	Score
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	5 (2.8 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	0 (p=0.896)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	0 (p=0.570)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	0 (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	0 (4)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	0 (4)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.				and	and	and	or
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	0 (1.04)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	

	0	1	3	5	0 (-0.11)

Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6
	0	1	3	5	0 (0.17)	

Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001
	0	1	3	5	1 (p=0.029)	

OVERALL SCORE WHZ =	0-9	10-14	15-24	>25	6 %

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

There were no duplicate entries detected.

Percentage of children with no exact birthday: 70 %

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=69/ID=3:	HAZ (1.352), Age may be incorrect
Line=116/ID=1:	WHZ (-8.778), WAZ (-6.496), Weight may be incorrect
Line=137/ID=1:	WAZ (1.769), Weight may be incorrect
Line=141/ID=3:	HAZ (1.850), Age may be incorrect
Line=142/ID=1:	HAZ (1.389), WAZ (2.016), Age may be incorrect
Line=143/ID=2:	HAZ (3.267), WAZ (2.498), Age may be incorrect
Line=151/ID=4:	WHZ (-4.246), Height may be incorrect
Line=177/ID=2:	WHZ (2.797), Height may be incorrect
Line=197/ID=1:	HAZ (1.839), Age may be incorrect
Line=232/ID=1:	WHZ (2.715), Height may be incorrect
Line=238/ID=1:	WHZ (-4.756), Weight may be incorrect
Line=253/ID=1:	HAZ (1.717), Age may be incorrect
Line=255/ID=1:	WHZ (-6.895), WAZ (-4.844), Weight may be incorrect
Line=301/ID=2:	WHZ (2.573), Height may be incorrect

Line=313/ID=2: HAZ (-5.802), Height may be incorrect
Line=331/ID=2: WHZ (5.534), HAZ (-6.720), Height may be incorrect
Line=387/ID=2: WHZ (2.584), Height may be incorrect
Line=398/ID=2: WHZ (3.741), Height may be incorrect
Line=566/ID=2: HAZ (1.437), Age may be incorrect
Line=639/ID=1: WHZ (-3.892), Weight may be incorrect
Line=642/ID=2: WHZ (-4.622), Weight may be incorrect
Line=644/ID=2: WHZ (-4.460), Weight may be incorrect
Line=655/ID=1: WHZ (-3.891), Weight may be incorrect
Line=661/ID=1: WHZ (-4.170), Weight may be incorrect
Line=662/ID=1: WHZ (-3.968), Weight may be incorrect
Line=666/ID=2: WHZ (-5.105), Weight may be incorrect
Line=693/ID=1: WHZ (-3.655), Weight may be incorrect
Line=712/ID=1: HAZ (-5.123), Age may be incorrect
Line=721/ID=2: HAZ (-5.576), Age may be incorrect
Line=730/ID=1: HAZ (1.851), Height may be incorrect
Line=733/ID=1: WHZ (-4.123), Weight may be incorrect
Line=749/ID=1: WHZ (-4.023), HAZ (2.092), Height may be incorrect
Line=798/ID=1: WHZ (-3.724), WAZ (-4.928), Weight may be incorrect
Line=800/ID=1: HAZ (1.000), Age may be incorrect
Line=813/ID=1: WHZ (-6.383), WAZ (-4.877), Weight may be incorrect
Line=865/ID=1: WHZ (2.874), HAZ (-6.777), Height may be incorrect
Line=868/ID=2: WHZ (-3.556), Weight may be incorrect
Line=899/ID=3: HAZ (1.197), Height may be incorrect
Line=918/ID=2: HAZ (-5.516), Age may be incorrect
Line=926/ID=1: WAZ (-4.614), Weight may be incorrect
Line=931/ID=1: HAZ (-5.236), WAZ (-4.874), Age may be incorrect
Line=950/ID=1: WHZ (-3.889), HAZ (2.165), Height may be incorrect
Line=951/ID=2: WHZ (-4.963), Weight may be incorrect
Line=966/ID=1: HAZ (-5.149), Height may be incorrect

Percentage of values flagged with SMART flags:WHZ: 2.8 %, HAZ: 2.2 %, WAZ: 1.0 %

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: 0.88 (The value should be around 0.85).:
p-value = 0.570 (as expected)

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

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	106/108.1 (1.0)	116/107.2 (1.1)	222/215.3 (1.0)	0.91
18 to 29	12	100/105.4 (0.9)	113/104.5 (1.1)	213/209.9 (1.0)	0.88
30 to 41	12	120/102.2 (1.2)	104/101.3 (1.0)	224/203.5 (1.1)	1.15
42 to 53	12	85/100.6 (0.8)	90/99.7 (0.9)	175/200.2 (0.9)	0.94
54 to 59	6	55/49.7 (1.1)	39/49.3 (0.8)	94/99.0 (0.9)	1.41
6 to 59	54	466/464.0 (1.0)	462/464.0 (1.0)		1.01

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

Overall sex ratio: p-value = 0.896 (boys and girls equally represented)
Overall age distribution: p-value = 0.218 (as expected)
Overall age distribution for boys: p-value = 0.172 (as expected)

Overall age distribution for girls: p-value = 0.333 (as expected)
Overall sex/age distribution: p-value = 0.027 (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: 4 (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.167

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: 4 (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.054

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: 4 (0-7 excellent, 8-12 good, 13-20 acceptable and > 20 problematic)
p-value for chi2: 0.293

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:		1.25	1.16	1.04
(The SD should be between 0.8 and 1.2)			
Prevalence (< -2)			
observed:	9.3%	8.9%	7.4%
calculated with current SD:	12.1%	10.1%	7.2%
calculated with a SD of 1:	7.2%	7.0%	6.5%
HAZ			
Standard Deviation SD:		1.24	1.22	1.12
(The SD should be between 0.8 and 1.2)			
Prevalence (< -2)			
observed:	54.1%	54.0%	54.4%

calculated with current SD:	53.0%	52.7%	54.0%
calculated with a SD of 1:	53.7%	53.3%	54.5%

WAZ

Standard Deviation SD:	0.96	0.94	0.89

(The SD should be between 0.8 and 1.2)

Prevalence (< -2)

observed:

calculated with current SD:

calculated with a SD of 1:

Results for Shapiro-Wilk test for normally (Gaussian) distributed data:

WHZ	p= 0.000	p= 0.000	p= 0.036
HAZ	p= 0.000	p= 0.000	p= 0.160
WAZ	p= 0.000	p= 0.000	p= 0.009

(If $p < 0.05$ then the data are not normally distributed. If $p > 0.05$ you can consider the data normally distributed)

Skewness

WHZ	-0.72	-0.34	-0.11
HAZ	0.14	0.25	0.00
WAZ	-0.35	-0.23	-0.24

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	4.22	1.17	0.17
HAZ	1.00	0.78	-0.19
WAZ	1.61	1.06	0.16

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=1.42 (p=0.029)

WHZ < -3: ID=1.02 (p=0.444)

GAM: ID=1.42 (p=0.029)

SAM: ID=1.02 (p=0.444)

HAZ < -2: ID=0.93 (p=0.609)

HAZ < -3: ID=1.58 (p=0.007)

WAZ < -2: ID=2.18 (p=0.000)

WAZ < -3: ID=1.65 (p=0.003)

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: 1.41 (n=48, f=2) ##########################

02: 1.26 (n=43, f=2) ##################

03: 1.15 (n=43, f=1) ###############

04: 1.24 (n=46, f=0) ##################

05: 1.19 (n=43, f=1) ###############

06: 1.37 (n=46, f=1) ########################

07: 0.99 (n=45, f=0) ########

08: 1.15 (n=42, f=1) ###############

09: 1.72 (n=42, f=2) ##

10: 1.20 (n=46, f=1) #################

11: 1.27 (n=45, f=1) ####################

12: 1.28 (n=43, f=3) ####################

13: 1.02 (n=48, f=0) #########

14: 0.90 (n=46, f=1) ####

15: 1.28 (n=42, f=2) ####################

16: 1.27 (n=43, f=1) ####################

17: 1.29 (n=39, f=2) ####################

18: 0.90 (n=39, f=1) ####

19: 1.26 (n=34, f=1) ####################

20: 1.07 (n=30, f=0) ###########

21: 1.44 (n=26, f=1) ############################

22: 1.78 (n=20, f=1) OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

23: 1.28 (n=11, f=0) ~~~~~~~~~~~~~~~~~~~

24: 0.91 (n=06, f=0) ~~~~

25: 0.90 (n=04, f=0) ~~~~

26: 1.12 (n=02, f=0) ~~~~~~~~~~~~~

27: 1.26 (n=02, f=0) ~~~~~~~~~~~~~~~~~~

28: 3.53 (n=02, f=1) ~~~~~~~~~~~~~~~~~~~

HAZ:	1.4	0.6	1.7	1.3	1.4	2.9
WAZ:	0.0	0.0	0.0	0.0	0.0	2.9

Age ratio of 6-29 months to 30-59 months:

	0.80	0.85	0.86	1.01	0.88	0.84

Sex ratio (male/female):

	0.89	0.94	1.12	1.05	1.04	1.03

Digit preference Weight (%):

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

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

Digit preference Height (%):

.0 :	6	13	10	11	11	5
.1 :	11	8	21	13	13	9
.2 :	15	14	7	8	9	9
.3 :	14	12	9	12	11	9
.4 :	10	14	7	10	9	9
.5 :	11	11	7	7	9	8
.6 :	9	7	12	14	13	11
.7 :	8	9	9	13	11	11
.8 :	7	6	9	8	4	16
.9 :	8	7	8	4	9	14
DPS:	10	10	13	10	9	10

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

Digit preference MUAC (%):

.0 :	4	11	12	18	7	8
.1 :	6	9	8	8	9	10
.2 :	14	12	9	11	7	7
.3 :	12	9	10	12	9	11

.4 :	13	12	9	10	11	10
.5 :	7	16	13	14	9	5
.6 :	11	10	7	9	11	17
.7 :	15	9	8	3	11	7
.8 :	6	8	13	5	10	10
.9 :	13	4	11	10	15	14
DPS:	13	9	7	14	7	11

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

Standard deviation of WHZ:						
SD	1.44	1.21	1.34	1.09	1.13	1.30
Prevalence (< -2) observed:						
%	18.3	9.3	7.4	7.2	6.4	7.9
Prevalence (< -2) calculated with current SD:						
%	18.2	9.7	9.6	11.1	10.7	12.7
Prevalence (< -2) calculated with a SD of 1:						
%	9.5	5.9	4.1	9.0	8.1	6.8
Standard deviation of HAZ:						
SD	1.17	1.13	1.29	1.34	1.21	1.22
observed:						
%	52.1	52.2	62.8	54.7	59.6	44.3
calculated with current SD:						
%	53.6	56.5	56.8	52.1	55.1	44.7
calculated with a SD of 1:						
%	54.3	57.3	58.8	52.9	56.2	43.5

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	19/15.5 (1.2)	14/17.4 (0.8)	33/32.9 (1.0)	1.36
18 to 29	12	12/15.2 (0.8)	18/17.0 (1.1)	30/32.1 (0.9)	0.67
30 to 41	12	13/14.7 (0.9)	15/16.4 (0.9)	28/31.1 (0.9)	0.87
42 to 53	12	16/14.5 (1.1)	22/16.2 (1.4)	38/30.6 (1.2)	0.73
54 to 59	6	7/7.2 (1.0)	6/8.0 (0.7)	13/15.2 (0.9)	1.17

---

6 to 59	54	67/71.0 (0.9)	75/71.0 (1.1)	0.89

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

Overall sex ratio: p-value = 0.502 (boys and girls equally represented)
Overall age distribution: p-value = 0.639 (as expected)
Overall age distribution for boys: p-value = 0.775 (as expected)
Overall age distribution for girls: p-value = 0.486 (as expected)
Overall sex/age distribution: p-value = 0.216 (as expected)

Team 2:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	15/18.1 (0.8)	20/19.3 (1.0)	35/37.4 (0.9)	0.75
18 to 29	12	20/17.6 (1.1)	19/18.8 (1.0)	39/36.4 (1.1)	1.05
30 to 41	12	23/17.1 (1.3)	19/18.2 (1.0)	42/35.3 (1.2)	1.21
42 to 53	12	10/16.8 (0.6)	14/17.9 (0.8)	24/34.7 (0.7)	0.71
54 to 59	6	10/8.3 (1.2)	11/8.9 (1.2)	21/17.2 (1.2)	0.91
6 to 59	54	78/80.5 (1.0)	83/80.5 (1.0)		0.94

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

Overall sex ratio: p-value = 0.694 (boys and girls equally represented)
Overall age distribution: p-value = 0.217 (as expected)
Overall age distribution for boys: p-value = 0.200 (as expected)
Overall age distribution for girls: p-value = 0.838 (as expected)
Overall sex/age distribution: p-value = 0.114 (as expected)

Team 3:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	11/14.8 (0.7)	13/13.2 (1.0)	24/28.1 (0.9)	0.85
18 to 29	12	17/14.5 (1.2)	15/12.9 (1.2)	32/27.4 (1.2)	1.13

30 to 41	12	18/14.0 (1.3)	15/12.5 (1.2)	33/26.5 (1.2)	1.20
42 to 53	12	6/13.8 (0.4)	8/12.3 (0.7)	14/26.1 (0.5)	0.75
54 to 59	6	12/6.8 (1.8)	6/6.1 (1.0)	18/12.9 (1.4)	2.00
6 to 59	54	64/60.5 (1.1)	57/60.5 (0.9)		1.12

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

Overall sex ratio: p-value = 0.525 (boys and girls equally represented)
Overall age distribution: p-value = 0.032 (significant difference)
Overall age distribution for boys: p-value = 0.028 (significant difference)
Overall age distribution for girls: p-value = 0.671 (as expected)
Overall sex/age distribution: p-value = 0.007 (significant difference)

Team 4:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	29/26.5 (1.1)	31/25.3 (1.2)	60/51.7 (1.2)	0.94
18 to 29	12	20/25.8 (0.8)	32/24.7 (1.3)	52/50.4 (1.0)	0.63
30 to 41	12	32/25.0 (1.3)	21/23.9 (0.9)	53/48.9 (1.1)	1.52
42 to 53	12	23/24.6 (0.9)	21/23.5 (0.9)	44/48.1 (0.9)	1.10
54 to 59	6	10/12.2 (0.8)	4/11.6 (0.3)	14/23.8 (0.6)	2.50
6 to 59	54	114/111.5 (1.0)	109/111.5 (1.0)		1.05

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

Overall sex ratio: p-value = 0.738 (boys and girls equally represented)
Overall age distribution: p-value = 0.192 (as expected)
Overall age distribution for boys: p-value = 0.406 (as expected)
Overall age distribution for girls: p-value = 0.059 (as expected)
Overall sex/age distribution: p-value = 0.011 (significant difference)

Team 5:

Age cat.	mo.	boys	girls	total	ratio boys/girls

6 to 17	12	17/16.7 (1.0)	21/16.0 (1.3)	38/32.7 (1.2)	0.81
18 to 29	12	19/16.3 (1.2)	9/15.6 (0.6)	28/31.9 (0.9)	2.11
30 to 41	12	18/15.8 (1.1)	21/15.1 (1.4)	39/30.9 (1.3)	0.86
42 to 53	12	10/15.5 (0.6)	12/14.9 (0.8)	22/30.4 (0.7)	0.83
54 to 59	6	8/7.7 (1.0)	6/7.4 (0.8)	14/15.0 (0.9)	1.33
6 to 59	54	72/70.5 (1.0)	69/70.5 (1.0)		1.04

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

Overall sex ratio: p-value = 0.801 (boys and girls equally represented)
Overall age distribution: p-value = 0.211 (as expected)
Overall age distribution for boys: p-value = 0.600 (as expected)
Overall age distribution for girls: p-value = 0.114 (as expected)
Overall sex/age distribution: p-value = 0.038 (significant difference)

Team 6:

Age cat.	mo.	boys	girls	total	ratio boys/girls
6 to 17	12	15/16.5 (0.9)	17/16.0 (1.1)	32/32.5 (1.0)	0.88
18 to 29	12	12/16.1 (0.7)	20/15.6 (1.3)	32/31.7 (1.0)	0.60
30 to 41	12	16/15.6 (1.0)	13/15.1 (0.9)	29/30.7 (0.9)	1.23
42 to 53	12	20/15.3 (1.3)	13/14.9 (0.9)	33/30.2 (1.1)	1.54
54 to 59	6	8/7.6 (1.1)	6/7.4 (0.8)	14/14.9 (0.9)	1.33
6 to 59	54	71/70.0 (1.0)	69/70.0 (1.0)		1.03

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

Overall sex ratio: p-value = 0.866 (boys and girls equally represented)
Overall age distribution: p-value = 0.981 (as expected)
Overall age distribution for boys: p-value = 0.623 (as expected)
Overall age distribution for girls: p-value = 0.720 (as expected)
Overall sex/age distribution: p-value = 0.314 (as expected)

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: 1.01 (n=07, f=0) #########

02: 0.86 (n=06, f=0) ##

03: 1.71 (n=07, f=0) ######################################

04: 1.26 (n=06, f=0) ##################

05: 1.44 (n=07, f=1) ############################

06: 1.24 (n=06, f=0) ##################

07: 1.15 (n=07, f=0) ###############

08: 1.22 (n=07, f=0) ##################

09: 1.12 (n=06, f=0) #############

10: 1.29 (n=06, f=0) ####################

11: 1.39 (n=07, f=0) ########################

12: 2.79 (n=05, f=2) ##

13: 1.31 (n=07, f=0) ####################

14: 0.68 (n=06, f=0)

15: 1.65 (n=07, f=0) ####################################

16: 1.13 (n=07, f=0) ##############

17: 1.77 (n=06, f=1) ##

18: 0.53 (n=05, f=0)

19: 1.10 (n=05, f=0) ############

20: 1.66 (n=05, f=0) ####################################

21: 1.95 (n=04, f=1) ##

22: 3.45 (n=03, f=1)
OOOO

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: 0.75 (n=08, f=0)

02: 1.50 (n=06, f=1) ##############################

03: 0.72 (n=08, f=0)

04: 1.47 (n=08, f=0) ############################

05: 1.65 (n=07, f=0) ###################################

06: 1.44 (n=08, f=0) ############################

07: 0.84 (n=08, f=0) ##

08: 0.86 (n=07, f=0) ##

09: 1.02 (n=06, f=0) #########

10: 1.37 (n=08, f=0) ########################

11: 1.21 (n=08, f=0) ################

12: 1.11 (n=08, f=0) #############

13: 0.95 (n=08, f=0) ######

14: 1.50 (n=07, f=1) ##############################

15: 1.06 (n=08, f=0) ###########

16: 1.56 (n=08, f=1) ################################

17: 1.64 (n=08, f=0) ###################################

18: 0.83 (n=08, f=0) #

19: 0.89 (n=07, f=0) ####

20: 0.98 (n=06, f=0) #######

21: 0.75 (n=05, f=0)

22: 0.94 (n=03, f=0) OOOOOO

(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

01: 1.74 (n=07, f=1) ##

02: 1.33 (n=07, f=0) ######################

03: 0.98 (n=07, f=0) #######

04: 0.59 (n=07, f=0)

05: 0.68 (n=07, f=0)

06: 1.56 (n=06, f=0) ################################

07: 1.05 (n=07, f=0) ##########

08: 0.94 (n=06, f=0) ######

09: 4.08 (n=05, f=1) ##

10: 1.78 (n=07, f=1) ##

11: 0.38 (n=05, f=0)

12: 1.02 (n=07, f=0) #########

13: 0.74 (n=07, f=0)

14: 0.57 (n=07, f=0)

15: 1.05 (n=06, f=0) ##########

16: 0.84 (n=05, f=0) ##

17: 0.90 (n=06, f=0) ####

18: 1.07 (n=05, f=1) ############

19: 0.72 (n=03, f=0)

21: 0.15 (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: 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: 0.76 (n=11, f=0)

02: 0.97 (n=11, f=0) #######

03: 1.25 (n=07, f=0) OOOOOOOOOOOOOOOOOO

04: 1.11 (n=11, f=0) #############

05: 0.82 (n=09, f=0) #

06: 0.80 (n=11, f=0)

07: 1.31 (n=09, f=0) ####################

08: 1.65 (n=10, f=1) ####################################

09: 1.47 (n=10, f=1) ############################

10: 0.69 (n=10, f=0)

11: 1.08 (n=11, f=0) ############

12: 1.04 (n=09, f=0) ##########

13: 0.95 (n=11, f=0) ######

14: 1.03 (n=11, f=0) ##########

15: 0.73 (n=11, f=0)

16: 1.08 (n=11, f=0) ############

17: 0.35 (n=09, f=0)

18: 0.84 (n=11, f=0) ##

19: 1.66 (n=10, f=1) ####################################

20: 1.24 (n=09, f=0) ##################

21: 1.74 (n=08, f=0) ##

22: 1.11 (n=08, f=0) #############

23: 1.64 (n=05, f=0) OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

(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: 1.08 (n=07, f=0) ############

02: 0.92 (n=06, f=0) #####

03: 0.52 (n=07, f=0)

04: 1.39 (n=07, f=0) ########################

05: 0.97 (n=06, f=0) #######

06: 2.29 (n=07, f=1) ##

07: 0.84 (n=07, f=0) ##

08: 0.82 (n=05, f=0) #

09: 1.31 (n=07, f=0) ####################

10: 0.76 (n=07, f=0)

11: 0.83 (n=06, f=0) #

12: 0.48 (n=07, f=0)

13: 1.07 (n=07, f=0) ###########

14: 0.56 (n=07, f=0)

15: 0.92 (n=05, f=0) #####

16: 0.74 (n=06, f=0)

17: 2.04 (n=04, f=1) ##

18: 0.48 (n=06, f=0)

19: 0.93 (n=05, f=0) ######

20: 0.41 (n=06, f=0)

21: 1.14 (n=04, f=0) ##############

22: 0.26 (n=03, f=0)

23: 0.06 (n=02, f=0)

25: 0.18 (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: 2.64 (n=08, f=1) ##

02: 1.79 (n=07, f=1) ##

03: 1.64 (n=07, f=1) ###################################

04: 1.39 (n=07, f=0) ########################

05: 0.90 (n=07, f=0) ####

06: 0.75 (n=08, f=0)

07: 0.93 (n=07, f=0) ######

08: 0.50 (n=07, f=0)

09: 0.83 (n=08, f=0) #

10: 1.33 (n=08, f=0) ######################

11: 1.51 (n=08, f=1) ##############################

12: 1.04 (n=07, f=0) ##########

13: 1.14 (n=08, f=0) ##############

14: 0.67 (n=08, f=0)

15: 2.46 (n=05, f=1) ##

16: 1.57 (n=06, f=0) ################################

17: 0.81 (n=06, f=0) #

18: 0.97 (n=04, f=0) OOOOOOO

19: 1.39 (n=04, f=0) OOOOOOOOOOOOOOOOOOOOOOOO

20: 0.46 (n=03, f=0)

21: 0.29 (n=03, f=0)

22: 0.48 (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)

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

Annex 4: Questionnaires

سوالنامه مادر یا پایواز SMART

۱ معرفت

Code	سوالات	پاسخ
DATE	تاریخ مصاحبه	
VILLAGE	نام قریه	
CLUSTER No	نمبر کلستر	
TEAM No	نمبر تیم	
HH No.	نمبر خانواده	
CAREGIVER No.	نمبر مادر یا پایواز	

قسمت 2 : مراقبت قبل از ولادت و پرسش صحت

ANC	ایا کدام معاینه رابخاطر طفل تان قبل از ولادت اجرا نموده اید ؟	1. بلی 2. نخیر
WHOM	اگر جوا بلی باشد کیها شما را معاینه کرده بود ؟	1. کارکن صحی / مسلکی (داکتر ، قابله ،کومکی قابله ، نرس) شخص 2. دایه محلی 3. رضا کار صحی 4. اقارب 96.(مشخص نماید) .....

DISTANCE	چقدر فاصله را طی می کنید تا کلینک بروید؟	(با دقیقه بنویسید) ___ _

قسمت ۳ : حفظالصحه

Code	چی قسم و چی وقت دستهای خود را میشوید (تاکید نه کنید)	بلی	نه خیر
Aft.DEF	بعد از رفع حاجت یا بعد از تشناب	1	2
Aft. Clean Baby	بعد از پا کردن طفل	1	2

Bef. Food Prep	قبل از تهیه کردن غذا	1	2
Bef. Eat	قبل از غذا خوردن	1	2
Bef. Feed child	قبل از اینکه به طفل خودم شیر یا غذا میدهیم	1	2

Code	چی قسم دستهای خود را میشوید	بلی	نه خیر
WTR	تنها به اب	1	2
Soap/Ash	صابون	1	2
Both Hands	هر دو دست	1	2
Rubs 3 times	دستهای خود را سه بارمی مالیم	1	2
Dry Hands	دستهای خود را با دستمال یا دستپاک پاک خوشک می کنید	1	2

قسمت ۴: تغذیه مادران

Code	حالا میخواهیم که اندازه بازو تان را اندازه نمایم	
MUAC	موک به ملی متر MUAC	ملی متر .....
Status	حالت فزیالوژیک چی قسم است	1. حامله 2. شیر ده 3. هیچکدام
iron-folate	ایا تابلیت ها اهن را خورده ید (برای خانمهای حامله)؟	1. بلی 2. نه خیر 98. نمی فهمم

فورم خود را چک نماید که به شکل درست خانه پور گردیده بعدا از پایواز تشکری نماید

Food Security Assessment - Household Questionnaire

بررسی مصؤنیت غذایی - پرسشنامه خانوار

Section 0 – Survey information

- معلومات سروی بخش 0

سرویر باید نخست خود را معرفی نموده وهدف سروی خودرا تشریح نماید. بعد ازخانوار مورد سروی اجازه مصاحبه خواسته وصرف بعد از موافقه ایشان مصاحبه را آغاز نماید. باید به خانوار اطمینان داده شود که معلومات ارائه شده ایشان محرم خواهد ماند وبا هیچ کسی شریک نخواهد شد. همچنان به خانوار گفته شود که مصاحبه هذا متضمن هیچ نوع مساعدت به خانوار ایشان فعلا، و درآینده نمی باشد.

0.1 Province name نام ولایت		0.5 Date of interview تاریخ مصاحبه	,|__|__| ماه ,|__|__|روز |__|__|سال
0.2 District name نام ولسوالی		0.6 Name of respondent نام پاسخ دهنده	
0.3 Community Name نام قریه/ناحیه		0.7 Household Number نمبر خانوار	
0.4 Name of surveyor نام سروی کننده		0.8 Team number تیم نمبر	

8.1 Reduced Coping Strategy Index (related to food consumption) شیوه های مجادلوی مربوط مصرف غذا		
In the past 7 days, if there have been times when you did not have enough food or money to buy food, how often has your household had to: در 7 روز گزشته اگر گاهی غذای کافی و پول برای خرید آن را نداشته اید چند بار به یکی از اقدامات ذیل متوصل شده اید ؟		Frequency (تکرار) No. of Days the strategy repeated in last 7 days (from 0 to 7) تکرار: تعداد روز هایکه چنین روش ها را در 7 روزگذشته تکرار کرده اید (از 0 الی 7)
a.	Rely on less preferred and less expensive foods تکیه روی غذای کمتر مورد پسند و کم ارزش؟	|___|
b.	Borrow food, or rely on help from a friend or relative قرض گرفتن غذا یا تکیه به کمک ا قارب و دوستان	|___|

c.	Limit portion size at mealtimes کاهش در مقدارغذا در وقت صرف طعام	|___|
d.	Restrict consumption by adults in order for small children to eat نخوردن غذا توسط بالغین بخاطر ایکه اطفال سیر شوند	|___|
e.	Reduce number of meals eaten in a day کاستن از اوقات غذا	|___|

Food Access and Consumption	بخش 8- دسترسی و مصرف غذا

8.2 Food Consumption Score (7 day recall) نمره حاصله از مصرف غذا (طی 7 روز گذشته)

Could you please tell me how many days in the past week your household has eaten the following food types? Please make sure that we are asking about food groups eaten by the entire household members and also in a quantity which make sense.
If two or more food of the same food group is eaten in one day the number of day eaten will be one.
متوانید برایم بگوئید که در مدت 7 روز گزشته اعضاً خانوار شما چند روز از غذا های ذکرشده در ذیل صرف نموده اند؟
کوشش کنید که غذا های را ثبت نمائید که توسط تمام ویا اکثریت اعضای خانوار به مقدار قابل ملاحظه خورده شده باشد. اگردو ویا بیشترغذا از عین گروپ غذایی در عین روز مصرف شده باشد آنرا یکی بشمارید.

Food Group گروپ غذایی	No. of Days the food group is eaten in last 7 days (from 0 to 7) تعداد روز هایکه در 7 روز گزشته گروپ غذایی مذکور صرف شده است (از 0 الی 7)	What was the main source of this food in the last 7 days? منبع عمده این غذا در 7روز گذشته چی بوده؟ 1= Own production; (تولیدات خود) 2= Purchase on cash; (توسط پول خریداری شده) 3= Purchase on credit (طور قرضه خریداری گردیده) 4= Bartering; (تبادله جنس به جنس) 5= Gifts/Charity; (تحفه/خیرات) 6= Collecting wild foods (جمع اوری غذاهای وحشی) 7= Food aid (Gov, NGO/WFP) (کمک غذایی از طرف دولت، موسسات/WFP)
Cereals or tubers (Bread, wheat, rice, maize, Potatoes, sweet potatoes, etc) غله جات مانند نان، گندم ، برنج، جواری، کچالو وغیره	|___|	|___|

Pulses (Beans, lentilles, peas, etc) حبوبات (لوبیا، نخود، عدس وغیره)	|__|	|__|
Vegetables سبزیجات	|__|	|__|
Fruits میوه جات	|__|	|__|
Meat, of all type, fishes and eggs انواع گوشت، ماهی و تخم	|__|	|__|
Dairy (milk, yogurt, Cheese, other milk prod) لبنیات (شیر، ماست، پنیرو تولیدات دیگرلبنی)	|__|	|__|
Sugar, honey شکر، عسل وامثال	|__|	|__|
Oil, fats روغن، شحمیات	|__|	|__|
Condiments مصاله جات	|__|	|__|

8.3 Household General Coping Strategies شیوه های مجادلوی عمومی خانوار	
10.3.1 In the past 12 months, have there been times when you did not have enough money to buy food and basic none food needs? در 12 ماه گذشته گاهی شده که پول برای خرید غذا و ضروریات اساسی دیگرنداشته باشید؟ 1=Yes (بلی) 2=No >> Section11 (به بخش 11 بروید)	|___|
8.3.2 If yes, has anyone in your household used any of the following strategies when facing difficulties to obtain food or cover other expenditures? اگر پاسخ بلی باشد، پس آیا شما ویا کدام عضو دیگر خانوار شما به یکی از شیوه های ذیل بخاطر حصول غذا ویا مصارف دیگر متوصل شده است ؟ 1= Yes (بلی) 2= No (نخیر)	
Sold reproductive livestock فروش مواشی نسلی	|___|

Sold house or land فروش خانه و زمین	|___|
Sold animals (more than usual or earlier than usual) فروش حیوانات اهلی غیر از آنچه معمول است	|___|
Worked to feed himself اجرای کار صرف در بدل غذا	|___|
Migrated to look for work مهاجرت به منظور کار یافتن	|___|
Increased daily labour (Increase number of daily worker, increase number of days, increase number of working hours) افزایش در روز مزدی (افزایش در تعداد روزمزدان ، تعداد روز های کاری ویا ساعات کاری)	|___|
Decreased expenditures on health, education, etc کاستن از مصارف صحی، تعلیم و غیره	|___|
Increased collection and sale of natural resources افزایش در جمع آوری و فروش منابع طبیعی	|___|
Spent savings or investments و سرمایه گذاریها مصرف از پس انداز	|___|
Sold household assets (appliances, furniture, doors, windows, roof beams) فروش لوازم خانه مانند تجهیزات، مبل و فرنیچر، دروازه، کلکین و غیره	|___|
Sold income generating equipment فروش وسایل تولیدی	|___|
Rented out house/land کرایه دادن خانه یا زمین	|___|
Begging/ Relying on kinship گدایی/ اتکاء به خویشاوندان	|___|
Sold farm equipment فروش وسایل زراعت	|___|
Sent children for labor work outside household فرستادن اطفال بخاطرکار خارج از خانه	|___|
Pulling out children from school to have more labor force کشیدن کودکان از مکتب بخاطر کار	|___|

قسمت ا: معلومات

Code	سوالات	پاسخ
Date	تاریخ سروی	
Name	نام طفل	
Village	نام قریه	
Cluster	نمبرکلستر	
Team	نمبر تیم	
HH No.	نمبر خانواده	
Caregiver No.	نمبر پایواز از فورم پایواز	
Child No.	نمبرطفل	
BIRTH DATE	تاریخ تولد طفل	____/ __/ __تاریخ تولد 98. نمی فهمم
Age in months	عمر به ماه	
Sex	جنس طفل	1. بچه 2. دختر

۲ قسمت : تنها برای اطفالیکه سن شان 0-23 ماهه باشد

(Infant and Young Child feeding)

Code	حالی میخواهیم که در باره طفل تان چند سوال نمایم			
Ever BF	ایا این طفل شما شیر خورده	1. بلی	2. نه	98. نمی فهمم
time to BF	بعد از ولادت (اسم طفل) چی ُوقت طفل تان شیر داده اید یا شیرسینی خود را داده اید ؟	1. در ساعت اول 2. در 24 ساعت اول 3. بعد از 24 ساعت ولادت		
COLOSTRUM	ایا این طفل فله را خورده	1. بلی	2. نه خیر	98. نمی فهم
BF YSTD	ایا این طفل (نام را بگرید) در شب و روز گذشته شیر مادر خورده	1. بلی	2. نه خیر	98. نمی فهمم

Code	ایا این طفل (نام طفل را بگرید) در شب و روز گذتشه کدام مایعات را گرفته ؟

WTR	اب ساده	بلی .1	نه .2	نمی فهمم .98
FMLR	غذا طفال (محلی)	بلی .1	نه .2	نمی فهمم .98
Milk	شیر (پودری یا حیوانی)	بلی .1	نه .2	نمی فهمم .98
Juice	جوس	بلی .1	نه .2	نمی فهمم.98
Broth	اب گوشت و اب سبزیجات	بلی .1	نه .2	نمی فهمم .98
YOG	ماست	بلی .1	نه .2	نمی فهمم .98
PDG	فیرنی و مایعات مخلوط	بلی .1	نه .2	نمی فهمم .98
Other LIQ	مایعات دیگر (.....)	بلی .1	نه .2	نمی فهمم .98

SLD & Soft Food	ایا این طفل (نام طفل) در شب و روز گذشته جامد نیمه جامد و یا غذاهای نیمه نرم را داد اید ؟	بلی .1	نه .2	98. نمی فهمم
No. time	چند دفعه در شب و رزو گشذشته جامد و نیمه جامد غذا را اخذ گردیده	تعدادان نوشته کنید :|_ | 98 = نمی فهمم		

۳. قسمت : معافیت و صحت طفل که سن شان 0-59 ماه باشد

Code	ایا طفل شما (نام طفل) در 14 رزو گذشته مریض شده ؟	بلی .1	نه.2	نمی فهمم .98
FVR	تب	بلی .1	نه .2	نمی فهمم .98
ARI	سرفه یا مشکلات تنفسی	بلی .1	نه .2	نمی فهمم .98
DIAR	اسهال	بلی .1	نه . 2	نمی فهمم .98
Other	دیگر مشخص نماید			

تعریفات

اسهال: در سه یا زیاتر از دفعه رفع حاجت روز	سرفه : سرفه دوامدار و یا مشکلات ساه بندی	تب : بلند رفتن درجه حرارت بدن

جواب	کرم زدایی معافیت و ویتامین A	
1. بلی 2. نه 98. نمی فهمم	ایا این طفل (نام طفل) و یتامین A کپسول در 6 ماه گذشته اخذ نموده ؟	Vit A
1. بلی 2. نه 98. نمی فهمم	ایا این طفل (نام طفل) در 6 ماه گذشته ادویه ضد یی کرم را اخذ نموده (12-59 ماهه طفل) ؟	DWM
1. بلی 2. نه 98. نمی فهمم	ایا این طفل ندبه واکسین BCG دارد ؟	BCG
1. بلی کارد دارد 2. بل یکارد ندارد 3. نه خیر 98. نمی فهمم	ایا این طفل (نام طفل) واکسین فلج را گرفته ؟	Polio
1 . بلی کارد دار د 2. بل یکارد ندارد 3. نه خیر 98نمی فهمم	ایا این طفل واکسین سرخکان را اخذ نموده (9-59 ماه طفل) ؟	Measles

۳. قسمت : از 0 الی 59 ماه اطفال اندازه گیری

اندازه	اندازه گیری بدن	
	وزن طفل به کیلو گرام و 0.1 هم در نظر گرفته شود	Weight
	قد یا طول به سانتی متر 0.1 سانتی متر در نظر گرفته شود	Height/length
بلی = 1 نه = 2	پندیده گی در موجودیت پندیده گی سوپر وایزر خو را در جریان بماند و عکس طفل به شکل واضح گرفته شود در صورت امکان	Edema
	موک به ملی متر	MUAC

قسمت : معلومات

Code

Date: تاریخ سروی .....

Village: نام قریه .....

Team No: نمبر تیم .....

Cluster No : کلستر نمبر

HH No: نمبر خانه وار .....

Time:وقت مصاحبه ساعت: دقیقه: .....

ایا خانه وار اجازه یی مصاحبه دارد ؟

بلی =1

نه =2

اگر جواب نه باشد دلیل ان بنویسید

.....

.....

۲ قسمت : تمام سوالات در باره یی خانه وار است (اب حیوانات شامل نسیت)

Code	سوالنامه	پاسخ
WTR source	شما برای نوشیدن از کدام اب استفاده می کنید ؟	منابع اصلاح شده 1. پایپ 2. چشمه یی محفوظ 3. اب برمه که پمپ دستی داشته باشد 4. چایکه پیپ دستی داشته باشد 5. کاریز محفوظ 96. دیگر مشخص سازید: _____ منابع غیر اصلاح شده 1. سیند یا کانال

		2. دریاچه که اب در ان ذخیره می شود 3. چاه یی بوکه دار 4. غیر محفوظه کاریز 5. چشمه یی غیر محفوظ 96. دیگر مشخص سازید_____
WTR treatment	ان اب که همیشه استفاده می کنید برای نوشیدن برای تصفیه ان چی می کنید ؟ <u>تاکید کنید که چیزی بگوید</u>	1. جوش داده 2. استفاده کلورین 3. صافی کردن اب با تیکه یی ململ 4. استعمال قلتر 5. صبر می کنیم که صاف شود 96. دیگر مشخص ----------
WTR use	مصرف اب تان در شب و روز گذشته چقدر بود بیدون از حیوانات ؟ مثال 20 لیتره بوشکه را بدهید	A. حجم یا اندازه یی بوشکه [_____] B. تعداد بوشکه [_____] اب مجموعی= A*B = [_____]

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ولایت / Province		ولسوالی / District		VILLAGE: قریه	
NAME OF INTERVIEWER: اسم مصاحبه کننده			Date of the survey تاریخ سروی :		
CLUSTER NO. کلستر نمبر		TEAM NO. تیم نمبر		HOUSEHOLD NO. نمبر خانواده	
از شروع نوروز تا به حالی (17/3/1395) (Start date of the recall)					
WRITE 'Y' for YES. Leave BLANK if NO و اگر نه بود خانه خالی مانده می شودYاگر بلی بود نوشته نماید					

01	02	03	04	05	06	07	08	09	10
No.	Name نام اعضای خانواده	Sex جنس (M یا F)	Age (years) عمر با (سال	Joined on or after: یک جا شده	Left on or after : خانه را ترک کرده	Born on or after : تولد شده	Died on or after : فوت کرده	Cause of death (optional) علت مرگ (اختیاری)	Location of death (optional) موقیعت مرگ (اختیاری)
a) List all the Household membres That are curent living in This Household. لیست تمام اعضای خانواده که فعلا در این خانه زندگی می نماید									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

09 Cause of death (optional)

10 Location of death (optional)

15									
16									
17									
18									
19									
20									

b) List all the household membres that have left this household (out migrants) since the start of the recall period.

لیست تمام اعضای خانوادیکه خانه را تر ک کرده یا مهاجر شده از شروع نوروزتا به حالی (b

1					Y				
2					Y				
3					Y				
4					Y				
5					Y				

who died since the start of the recall period. c) List all the household members

لیست تمام اعضای خانوادیکه فوت نموده از شروع نوروزتا به حالی (c

1							Y		
2							Y		
3							Y		
4							Y		
5							Y		

Was anyone in the household pregnant at the start of the recall period? No [ ] Yes [ ] If yes, how many? _____

ایا در این خانه کدام خانم حامله است بلیY _____ : نه No_____ اگر است جند نفر است تعدا ان بنویسید _____

Annex 5: Local event calendar

1395	ماهای	1394	ماهای	1393	ماهای	1392	ماهای	1391	ماهای	1390	ماهای	ماه
نوروز . روز دهقان . میله دیگ		نوروز . روز دهقان . میله دیگ		نوروز . روز دهقان . میله دیگ		نوروز . روز دهقان . میله دیگ		نوروز . روز دهقان . میله دیگ		نوروز . روز دهقان . میله دیگ		
شگوفه ها ،میله نوروز، ارغوان	8	شگوفه ها ،میله نوروز، ارغوان	20	شگوفه ها ،میله نوروز، ارغوان	32	شگوفه ها ،میله نوروز، ارغوان	44	شگوفه ها ،میله نوروز، ارغوان	56	شگوفه ها ،میله نوروز، ارغوان		حمل
غرس نهال ، وقت ثمنگ . اول فصل بهار		غرس نهال ، وقت ثمنگ . اول فصل بهار		غرس نهال ، وقت ثمنگ . اول فصل بهار		غرس نهال ، وقت ثمنگ . اول فصل بهار		غرس نهال ، وقت ثمنگ . اول فصل بهار		غرس نهال ، وقت ثمنگ . اول فصل بهار		
روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار	7	روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار	19	روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار	31	روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار	43	روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار	55	روز هشت ثور ، وقت خوشه گرفتن کندم . وقت گل انار		ثور
گندم دروی . روز مادر . پخته شدن		گندم دروی . روز مادر . پخته شدن		گندم دروی . روز مادر . پخته شدن		گندم دروی . روز مادر . پخته شدن		گندم دروی . روز مادر . پخته شدن		گندم دروی . روز مادر . پخته شدن		
پخته شدن توت وفت پخته شدن زردالو	6	پخته شدن توت وفت پخته شدن زردالو	18	پخته شدن توت وفت پخته شدن زردالو	30	پخته شدن توت وفت پخته شدن زردالو	42	پخته شدن توت وفت پخته شدن زردالو	54	پخته شدن توت وفت پخته شدن زردالو		جوزا
عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو	5	عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو	17	عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو	29	عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو	41	عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو	53	عبد رضان . گندم درو . جوار کاری . فصل الو بالو و ترکاری و قت غوره الو		سرطان
گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		گرمی شدید. فصل انگور و انجیر فصل خروبزه . تربوزه بادام و رومی		
رحصتی تابستانی	4	رحصتی تابستانی	16	رحصتی تابستانی	28	رحصتی تابستانی	40	رحصتی تابستانی	52	رحصتی تابستانی		اسد
وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		وقت جواری . عید قربان . فصل انار فصل چهار مغز و جنغوزی و فصل سیب		
	3		15		27		39		51			سنبله
ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ	2	ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ	14	ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ	26	ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ	38	ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ	50	ماه خزان . برگ ریزی 13 میزان . روز عاشورا . امدن کوچیها . زرد شدن برگ		میزان
اخر بار انگور . بخته شدن املوک		اخر بار انگور . بخته شدن املوک		اخر بار انگور . بخته شدن املوک		اخر بار انگور . بخته شدن املوک		اخر بار انگور . بخته شدن املوک		اخر بار انگور . بخته شدن املوک		
کشت کندم . کشت شفتل . برگ ریزان	1	کشت کندم . کشت شفتل . برگ ریزان	13	کشت کندم . کشت شفتل . برگ ریزان	25	کشت کندم . کشت شفتل . برگ ریزان	37	کشت کندم . کشت شفتل . برگ ریزان	49	کشت کندم . کشت شفتل . برگ ریزان		عقرب
اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا		اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا	12	اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا	24	اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا	36	اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا	48	اخر فصل خزان . ختم مکاتب . شروع امتحانات . اخر برگ ریزی . ماندن بخاری و صندلی شب یلدا		قوس
چله کلان و برف باری شدید اول فصل زمستان		چله کلان و برف باری شدید اول فصل زمستان	11	چله کلان و برف باری شدید اول فصل زمستان	23	چله کلان و برف باری شدید اول فصل زمستان	35	چله کلان و برف باری شدید اول فصل زمستان	47	چله کلان و برف باری شدید اول فصل زمستان	59	جدی
یخ بندان . شکست روسها . راه بندان . چله تر		یخ بندان . شکست روسها . راه بندان . چله تر	10	یخ بندان . شکست روسها . راه بندان . چله تر	22	یخ بندان . شکست روسها . راه بندان . چله تر	34	یخ بندان . شکست روسها . راه بندان . چله تر	46	یخ بندان . شکست روسها . راه بندان . چله تر	58	دلوه
اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی		اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی	9	اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی	21	اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی	33	اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی	45	اخرین ماه زمستان . گرم شدن هوا . شروع باران ها اماده گی سال نو بادام گل . شروع نهال شانی	57	حوت

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