



2015

COVERAGE ASSESSMENT

» SEMI-QUANTITATIVE EVALUATION OF ACCESS & COVERAGE



**Semi-Quantitative Evaluation of Access and Coverage (SQUEAC)
Community based Management of Acute Malnutrition (CMAM) Programme,
International Medical Corps (IMC), Kaya Refugee Camp, Maban, South Sudan**

Assessment Conducted: August 5th to 15th 2015



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ACKNOWLEDGEMENTS & ABBREVIATION

ACKNOWLEDGEMENTS

We would like to thank the United Nation High Commission for Refugees (UNHCR) & International Medical corps (IMC) who organised, participated and provided support to conduct this SQUEAC training and assessment successfully. We also thank World Food Programme (WFP) for their logistic support for the field work.

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Lastly, but not the least we would like to thank Coverage Monitoring Network's (CMN's) funders, ECHO and USAID for funding the CMN project. The CMN project made it possible to conduct this coverage assessment and to train some health and nutrition professionals that implement CMAM programme in Maban refugee camp in Upper Nile state of South Sudan.

ABBREVIATIONS

CHP	Community Health Promoter
CI	Credible Interval
CMAM	Community based Management of Acute Malnutrition
CMN	Coverage Monitoring Network
CHC	Community Health Committee
ECHO	European Commission Humanitarian Aid and Civil Protection
FGD	Focus Group Discussion
IRC	International Rescue Committee
KII	Key Informant Interview
LoS	Length of Stay
MAM	Moderate Acute Malnutrition
MUAC	Mid-Upper Arm Circumference
OTP	Outpatient Therapeutic Care
RUTF	Ready to Use Therapeutic Food
RUSF	Ready to Use Supplementary Food
SAM	Severe Acute Malnutrition
SSI	Semi Structure Interview
SQUEAC	Semi Quantitative Evaluation of Access and Coverage
TBA	Traditional Birth Attendant
SFP	Supplementary Feeding Programme
UNHCR	United Nation High Commission for Refugees
WFP	World Food Programme

EXECUTIVE SUMMARY

Maban is one of the thirteen counties located in Upper Nile State in the North East to South Sudan Republic. The refugee camp in Maban started in 2011 in response to the conflict between the Sudan Armed Forces (SAF) and the Sudan People's Liberation Movement/Army-North (SPLM-N) in Kordofan and Blue Nile States of Sudan. The conflict forced an estimated of 110,000 people to flee to Maban County in South Sudan's Upper Nile State. The number increased since, the total registered refugees were 120,000 as of November 2014. To cater for mass influx of refugees from Blue Nile state four camps were established in Maban country: Doro, Yusuf Batil, Gendrassa and Kaya (previously Jamam). The region is a semi-arid desert with sparse vegetation and no surface water. The climate is harsh with extreme temperatures during the dry season and flooding during the wet season.

The United Nations High Commissioner for Refugees (UNHCR) and the World Food Programme (WFP) has been working together, in partnership with other NGOs, namely IMC, Relief international/CHD, Samaritan's Purse (SP), Medair etc. to ensure that food security and other related needs (health services, water and sanitation, family planning) of the refugees are adequately addressed. WFP is responsible for the provision of the general food ration while UNHCR and its Implementing Partners provide health services, water and sanitation, shelter, and basic non-food items. To address acute malnutrition, Community Based Management of Acute Malnutrition (CMAM) programme is being implanting in all camps by UNHCR partners. Therefore IMC & UNHCR invited the Coverage Monitoring Network (CMN) to conduct assessment to their CMAM programme in Kaya camp and to train and build the capacity of nutritional professionals of their own and of the partner organisations on the Semi-Quantitative Evaluation of Access and Coverage (SQUEAC)¹ methodology.

The assessment used a three stage SQUEAC methodology i) collect and analyse the qualitative and quantitative data; ii) develop and test the hypothesis by a Small Area Survey; and iii) conduct a 'Wide Area Survey' to estimate the programme coverage rates of Out-patient Therapeutic Programme (OTP) and Targeted Supplementary Feeding Programme (TSFP).

Main Results

Stage -1

❖ The CMAM programme performance (quantitative):

The routine OTP and SFP data showed that from July 2014 to June 2015, of SAM children that were admitted in Kaya health facility of them 78% in OTP were successfully treated and cured. The data that was used during the assessment to investigate the OTP service qualities were consistent and helped for comprehensive analysis, however data for all essential indicators were not readily available and no data was available for SFP as the field team assume SQUEAC will conduct only to estimate coverage for OTP programme.

❖ Communities' participation and access to CMAM services (qualitative):

This community assessment revealed that community's engagement in CMAM programme is strong and it impacting positively on the CMAM service. For example, timely case finding and referral, good case retention and improved health seeking behaviour. The semi-structure interviews with 36 caretakers of children with MAM in the TSFP, 28 (78%) of them reported that Community Health Promoter (CHP) identified and referred their children with MAM to health facility. In order to sustain with this success, however, it will require genuine community involvement of community key stakeholders and caregivers of acute malnourished children. A Joint Action Plan (JAP) to address the barriers that were identified by this assessment, see below for detail in section 5.

Stage - 2

¹ Mark Myatt, Daniel Jones, Ephrem Emru, Saul Guerrero, Lionella Fieschi. SQUEAC & SLEAC: Low resource methods for evaluating access and coverage in Selective feeding programmes.

❖ Hypothesis testing and results

The community assessment identified some barriers in accessing and using of the CMAM service. One main barrier was identified was long distance from blocks to health facility. To better understand the long distance and its affect to access to CMAM service a hypothesis was developed; “Does the blocks close (i.e. within 15 minutes walking distance) to CMAM service delivery point have high coverage (>90%) and blocks far away (more than 30 minutes walking distance) from CMAM service delivery point are accessing the CMAM services. Therefore coverage may be unsatisfactory (<90%) in ‘far away blocks.’ To test this hypothesis 4 Blocks were selected systematically, 2 Blocks from far away from OTP sites and 2 Blocks close to the OTP sites and surveyed. The results compared with the 90% coverage threshold that is set for camp setting as a minimum coverage². The survey data revealed that for OTP the coverage is high in all blocks (≥90%), while for SFP coverage was low (<90%) across all blocks. From the survey data the program coverage are found homogenous in targeted blocks.

Stage - 3

❖ Coverage Estimation (results from wide area survey)

The ‘Wide Area Survey’ data was used for final coverage estimation by using the Bayesian SQUEAC calculator. The ‘Single’ coverage rate for SFP at **83.9%** (CI 77.0% - 89.0%), P value = 0.4106. The SFP programme coverage did not meet the SPHERE standard that set for camp settings, ≥90%². For OTP coverage only 1 SAM case was found in the survey and that child was in programme.

In 2013, coverage assessment for SFP programme was carried out in Gendrassa camp in Maban and the results was similar, the period coverage was estimate at 86.3% (CI 75.2%–93.9).

The survey identified some key barriers; to improve the coverage in Maban refugee camp the programme need to address the barriers which hinder in achieving the expected coverage for the camp setting. See the recommendation and detail Joint Action Plan in Section 5.

Main Barriers identified:

The main barriers identified were for not accessing and up taking of CMAM service were:

- Long distance to OTP site & long waiting time at health facility
- Shortage of RUSF
- Poor counselling at discharge
- Insecurity (internal & external)
- Low incentives to CHPs, MSG & nutrition staff
- Inadequate training to CHP on MUAC screening
- Staff turnover & language barrier
- Preference to traditional healers’ treatment over CMAM services

❖ Key Recommendations (for detail please see JAP in section 5)

1. Train the CHP supervisors in supportive supervision and technical assistance to CHPs
2. Engage & strengthen the role of the community leaders and key stakeholders in supporting community engagement for CMAM programme
3. Analysis CHPs report on a regular basis, provide feedback to CHPs and use evidence for improving the community engagement programme
4. Decentralize OTP service to health post to reduce the distance to service point and introduce a system to reduce waiting hour at health facility

Detailed recommendations and joint action plan provided below in Section 5 table 6 in order to improve the CMAM service quality.

² The Sphere Project, Humanitarian Charter and Minimum Standards in Humanitarian Response, 2011 Edition

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1. INTRODUCTION

1.1 MABAN REFUGEE CAMP IN SOUTH SUDAN

Maban is one of the thirteen counties located in Upper Nile State in the in the North East to South Sudan Republic. The refugee camp in Maban started in 2011 in response to the between the Sudan Armed Forces (SAF) and the Sudan People's Liberation Movement/Army-North (SPLM-N) in Kordofan and Blue Nile States of Sudan. The conflict forced an estimated of 110,000 people to flee to Maban County in South Sudan's Upper Nile State. The number increased since, the total registered refugees were 120,000 as of November 2014. To cater for mass influx of refugees from Blue Nile state four camps were established in Maban country: Doro, Yusuf Batil, Gendrassa and Kaya (previously Jamam). The region is a semi-arid desert with sparse vegetation and no surface water. The climate is harsh with extreme temperatures during the dry season and flooding during the wet season.

The refugees have limited access to additional sources of income; the majority of the refugee population is thus largely dependent on the general food ration from World Food Programme (WFP). The United Nations High Commissioner for Refugees (UNHCR) and the WFP has been working together, in partnership, to ensure that food security and related needs of the refugees are adequately addressed. WFP is responsible for the provision of the general food ration while UNHCR and its Implementing Partners provide health services, water and sanitation, shelter, and basic non-food items.

To address acute malnutrition, Community Based Management of Acute Malnutrition (CMAM) programme is implementing in all camps by UNHCR and WFP's Implementing Partners. Therefore IMC & UNHCR invited the Coverage Monitoring Network (CMN) to conduct assessment to their CMAM programme in Kaya camp and to train and build the capacity of nutritional professionals of their own and of the partner organisations on the Semi-Quantitative Evaluation of Access and Coverage (SQUEAC)³ methodology.

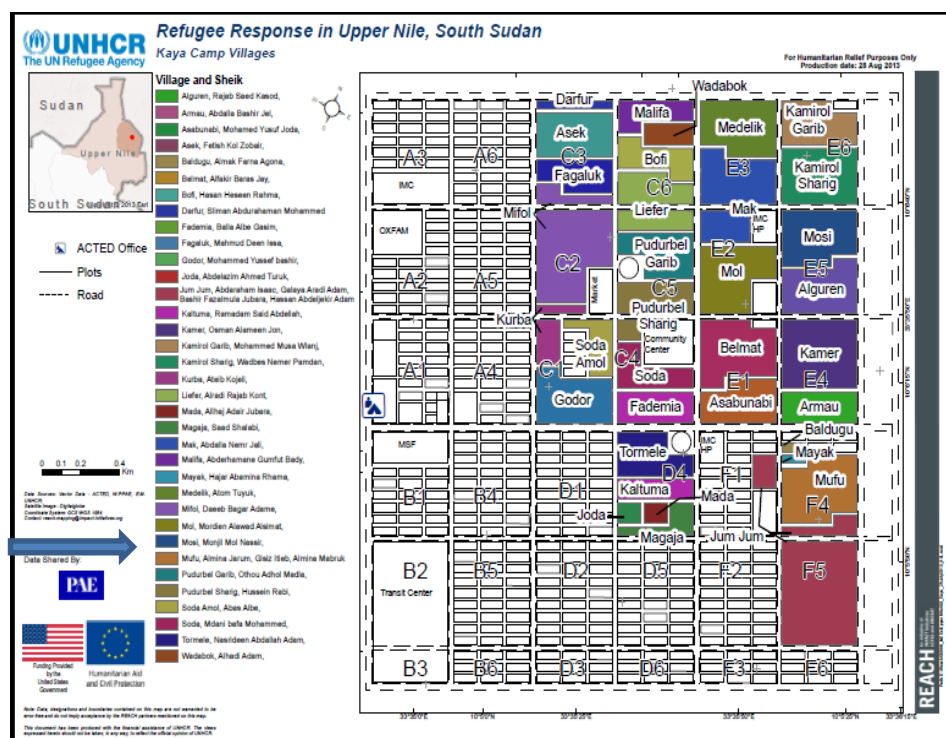
The crisis that began in December 2013 in South Sudan complicated the operational context in Maban. Then, the insecurity situation that occurred in Maban on August 2014 when fighting erupted between the Maban Defense Forces (MDF) and Sudan People Liberation Army (SPLA) along with targeted killing of humanitarian workers, further deteriorated conditions for humanitarian interventions.

1.2 KAYA CAMP

The Kaya (previously known as Jamam), is one of the four refugee camp in Maban, established in 2011, with estimated population of 22,539. The inhabitants/ refugees of Jamam camp were moved a few dozen kilometers to the south-east in May 2013 because of the flooding experienced in the Jamam area. The new camp is based around a quarry with better drainage, and is also much closer to the neighboring camp of Batil, at which MSF Médecins Sans Frontières has built a substantial hospital. See Kaya camp map below.

³ Mark Myatt, Daniel Jones, Ephrem Emru, Saul Guerrero, Lionella Fieschi. SQUEAC & SLEAC: Low resource methods for evaluating access and coverage in Selective feeding programmes.

Figure: 1 Layout of Kaya camp in Maban, South Sudan.

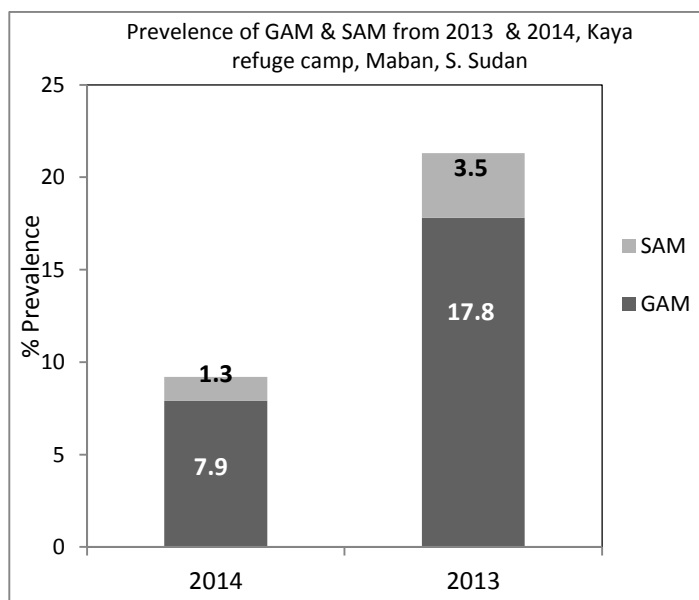


Source: IMC CMAM programme, in Kaya camp

1.3 ACUTE MALNUTRITION IN KAYA CAMP

Nutritional surveys have been conducted in Kaya camp using the Standardized Monitoring of Relief and Transitions (SMART) methodology to monitor the nutritional status of children age between 6-59 months (see figure 2). The last survey conducted was in November & December 2014 showed that the prevalence of Global Acute Malnutrition (GAM) (WHZ<-2) has reduced to 7.9% from 17.8%, and the severe acute malnutrition (SAM) prevalence (WHZ<-3 and/or oedema) has reduced to 1.3% from 3.5%. Using Mid Upper Arm Circumference (MUAC), the GAM rate was 7.9% (95% CI: 6.1- 10.2) and SAM rate was 4.1% (95% CI: 2.9- 5.9)⁴, WHO 2006. According to WHO classification, the GAM prevalence rate is within the acceptable threshold of (5%-9%).

Figure: 2 Trend of SAM & GAM prevalence rate in Kaya camp



⁴ Upper Nile (Maban) : South Sudan SENS Nutrition Survey Nov-Dec 2014

1.4 THE HEALTH AND NUTRITION PROGRAMME IN MABAN

In partnership with UNHCR, International Medical Corps UK (IMC UK) has been providing health and nutrition services to the refugee in Maban since 2012. IMC operations cover two camps in Maban, Gendrassa and Kaya camps with population of 39,603 refugees (17,803 in Gendrassa and 21,800 Kaya⁵). IMC provides comprehensive primary health care including outpatient care, routine immunization, nutrition, integrated outreach and education, mental health and psychosocial support, reproductive health and 24/7 basic emergency obstetric services and referrals to Bunj and Gentil Hospitals for secondary and tertiary medical care.

HIV prevention and health education are as an integral part of health outreach activities. IMC UK is also coordinate with partners managing community based GBV prevention and response to facilitate referrals, including referrals to IMC-supported MHPSS services where required.

For nutrition, IMC UK will continue to implement Community-based Management of Acute Malnutrition (CMAM) programs in Kaya camp. Active screening through integrated outreach will complement facility based screening to identify and enroll acutely malnourished children aged 6-59 months and pregnant and lactating women (PLW). The nutrition program will also focus on prevention of malnutrition, mainly through mother support groups, that meets on a bi-weekly basis, share experience and get to gain skills and knowledge on Infant Young Child feeding (IYCF) practices and hygiene related messages. Programme work closely with partners implementing food security and livelihood (FSL) activities to ensure complementarity of services as well as promoting comprehensive approaches to tackle some of the main causes of malnutrition.

⁵ Source: <http://data.unhcr.org/SouthSudan/settlement.php?id=155&country=251®ion=25>

2 OBJECTIVES OF TRAINING & ASSESSMENT

The overall objective of this investigation was to estimate the coverage of CMAM programme and to train and build capacity of some nutrition professionals of IMC and UNHCR, IMC requested CMN to support them with SQUEAC assessment in Kaya camp in Maban County in Upper Nile State in South Sudan. Furthermore, it is hoped to enable IMC & UNHCR and their partners from other organisations in Maban refugee camp in developing skills to conduct SQUEAC assessments in their programme in other camp independently, or with minimum remote support.

2.1 SPECIFIC OBJECTIVES

1. To Enhance capacity of nutrition/health staff of UNHRC, WFP and their nutrition programme implementing partners on SQUEAC methodology.
2. To estimate coverage of SFP and OTP in the Kaya camp.
3. Identify factors affecting access to and uptake of the CMAM services in Kaya camp.
4. To understand the context and communities targeted by the CMAM programme in order to design a comprehensive community mobilization strategy to improve access to CMAM services.
5. Develop specific recommendations and Joint Action Plan (JAP) in collaboration with assessment team and programme implementing agencies to improve acceptance and coverage of the programme.

2.2 EXPECTED OUTPUTS

1. Train selected health/nutrition staff on SQUEAC methodology
2. Develop a Joint Action Plan and strategy for community mobilization for CMAM programme
3. Produce a final coverage survey report of SQUEAC assessment and separate community mobilisation report for Kaya camp.

2.3 DURATION OF THE TRAINING AND THE ASSESSMENT

August 6th to 18th 2015, (Annex 1).

2.4 PARTICIPANTS

A total of 17 participants from six different organisations, UN, international & national NGOs, (UNHRC, IMC, Medair, RI/CHD, SP, & JDF) attended the training and assessment of coverage survey on SQUEAC methodology (Annex, 2).

3 INVESTIGATION PROCESS

The Semi-Quantitative Evaluation of Access and Coverage (SQUEAC) methodology was used to train the team and to conduct the coverage assessment in CMAM programme in Kaya camp in Maban County. The SQUEAC investigation methodology includes:

- Stage 1:** Analysis of qualitative (contextual data) and quantitative (routine programme monitoring data) data, compared with SPHERE minimum standard.⁶ Identify programme *boosters and barriers*.
- Stage 2:** Conducted a 'Small area survey' test hypothesis; if the blocks near to CMAM service points have highest high coverage and blocks far from CMAM service delivery points have low coverage.
- Stage 3:** Conducted a 'Wide area survey' to estimate programme coverage rate and compare with SPHERE minimum standard. Make recommendations and develop a JAP to improve access to services and increase coverage.

3.1 STAGE 1

3.1.1 ROUTINE PROGRAMME MONITORING DATA & CONTEXTUAL DATA

Data collection:

In stage one, quantitative and qualitative data was collected and analysed from all health facility that providing services to refugees in Kaya camp. For the quantitative part, routine programme monitoring data for OTP was provided by the IMC team. No data was readily available for TSF programme.

Routine programme monitoring data

SQUEAC utilises routine programme monitoring data that are accessible and directly related to quality of service in the programme. The data can be used to assess three things: i) the accuracy and appropriateness of the data related to the coverage and programme performance, ii) whether or not a programme is responding well to the demands of its context, and iii) whether there are specific areas within the programme's target area expected to have either relatively low or high coverage. The data was further analysed in relation to seasonality, disease pattern and changes in the target area that have an effect on the programme coverage. The programme performance indicators were compared to international minimum standard (SPHERE) related to the context of the implementation area. The aim was to assess the programme's capacity to respond to changes in demand for its services. The following data was collected and analysed:

Admission data	Programme performance indicators
- Admissions trend for OTP and seasonal calendar - MUAC status at admission for OTP - Age at admission	- Cured, Defaulters, Death, Non responders and Transferred cases – OTP - Defaulters' trend and seasonal calendar (labour period and migration etc.) - Length of Stay (LoS)

Admissions data

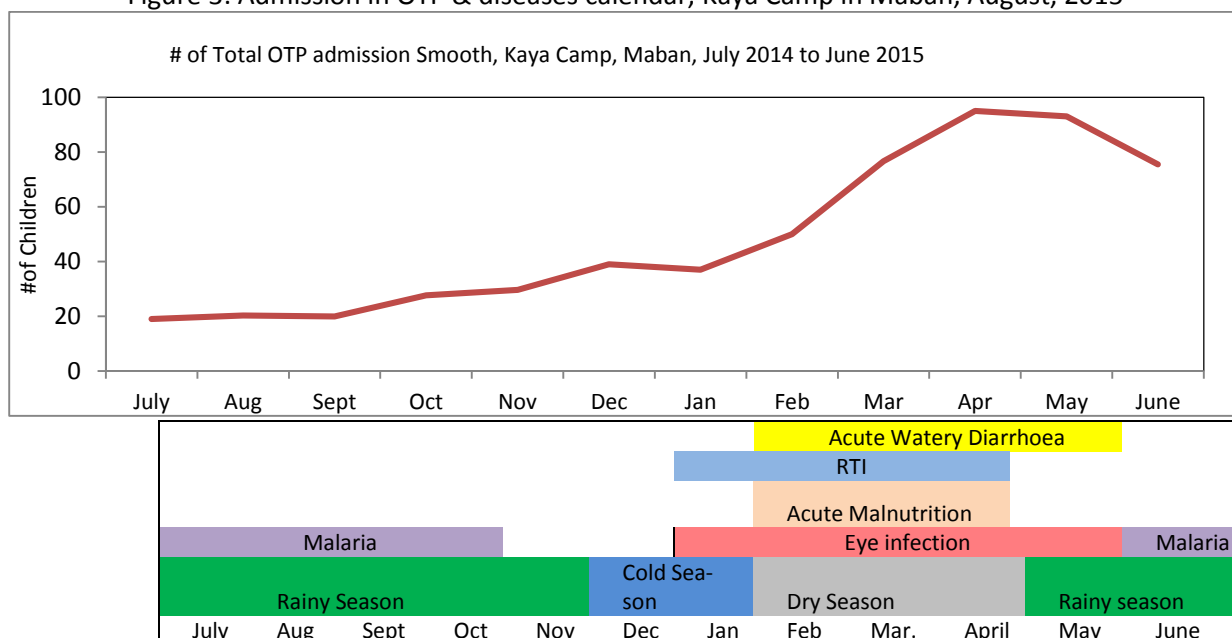
In Kaya, the IMC Nutrition (CMAM) programme has admitted in total 579 SAM cases in OTP between 6-59 months of age from July 2014 to June 2015 in Kaya health facility.

⁶ The Sphere Project Humanitarian Charter and Minimum Standards in Disaster Response, 2004

OTP Admissions and Seasonal Trend & Childhood Illness

The graph below shows the OTP admission trends of Kaya refugee camp in comparison with the seasonal calendar. There was a peak in admission in the month of April & May 2014 then gradually lower down in July. The assessment team in consultation with the community identified seasonal peak of childhood diseases and seasonal effect on malnutrition. The peak season for childhood illnesses seems February to May comparing with the other months of the year, as a consequence admissions goes high from February and continues till June. Figure 3 below shows that there is a relation between peak seasons of childhood illness with the admission trend in OTP.

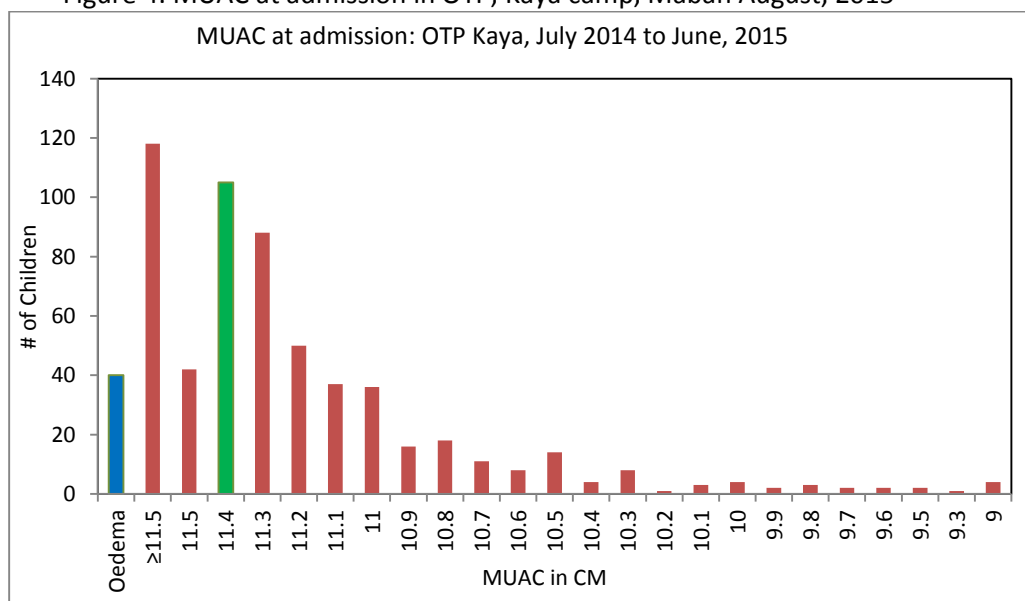
Figure 3: Admission in OTP & diseases calendar, Kaya Camp in Maban, August, 2015



MUAC at the time of admission in OTP

The admission MUAC allows the programme team to understand the timeliness of care seeking behaviours of communities as well as the pro-activeness of the volunteers & communities on early screening and referring of cases to CMAM programme. The data on admission MUAC was available for 579 children, the median MUAC at admission from the programme data was calculated to 11.4cm. This shows early case findings and positive health care seeking behaviour from the community for malnutrition care services. More than 20% children were admitted with MUAC ≥ 11.5 , this was due to using Weight for Height (WFH) as admission criteria along with MUAC. About 7% children admitted with oedema (see figure below).

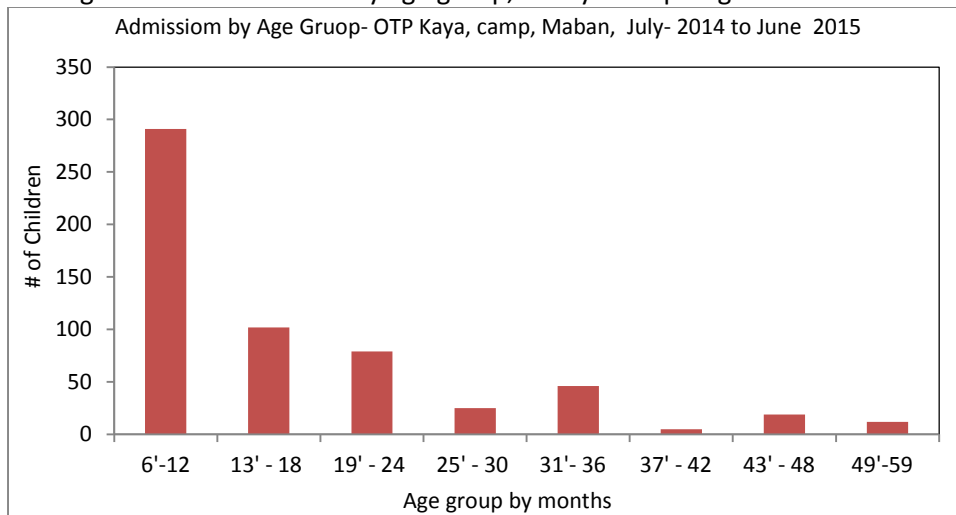
Figure 4: MUAC at admission in OTP, Kaya camp, Maban August, 2015



Age at admission

Age at admission allows the programme team to identify the age group that is at higher risk of acute malnutrition for further investigation on the underline causes. This information can be used to better address the causes of malnutrition in the community. The figure shows that highest number of the children 50% admitted in the programme is children age between 6 to 12 months, with highest percent (81%) between 6-24 months. This shows a great need to focus on infant and young child feeding (IYCF) practice interventions in operational area.

Figure 5: OTP admission by age group, in Kaya camp August 2015

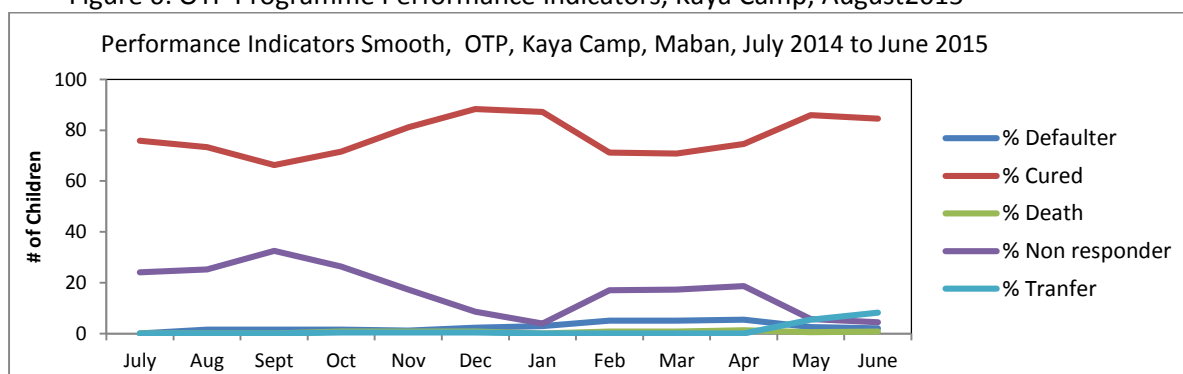


Programme performance indicators for OTP

The programme performance indicators are the number of children who exited from OTP, compared to their status at time of exit (discharged cured, defaulter, and death etc.). Percentages were used to ascertain the programme's service quality by comparing with the SPHERE minimum standards.

From July 2014 to June 2015, children that exited from the programme after receiving the treatment were from OTP were 491. Of them 78% children have been successfully treated and discharged cured. In the same period there are 3 deaths (0.5%) and 2.5% defaulters were recorded. The exit indicators are within SPHERE minimum standard, See figure below 6.

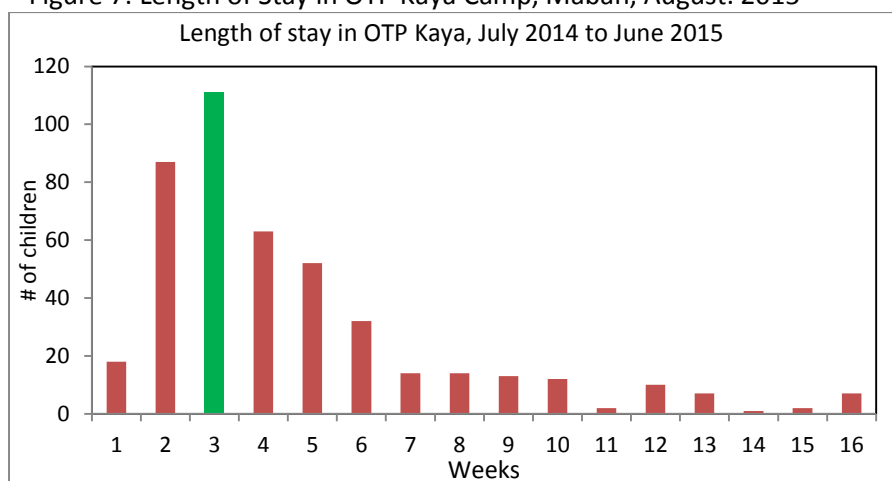
Figure 6: OTP Programme Performance Indicators, Kaya Camp; August 2015



Length of Stay (LoS)

Length of Stay in OTPs is an important performance indicator to assess the quality of care a child is receiving during treatment at the facility and at home. In general the average acceptable length of stay in OTP is 8 weeks and in SFP 12 weeks. The median length of stay for children admitted in OTP in Kaya camp was 3 weeks which is below the expected length of stay (figure 7). The programme needs to explore why 76% of the children exit from the programme within 3 week?

Figure 7: Length of Stay in OTP Kaya Camp, Maban, August. 2015



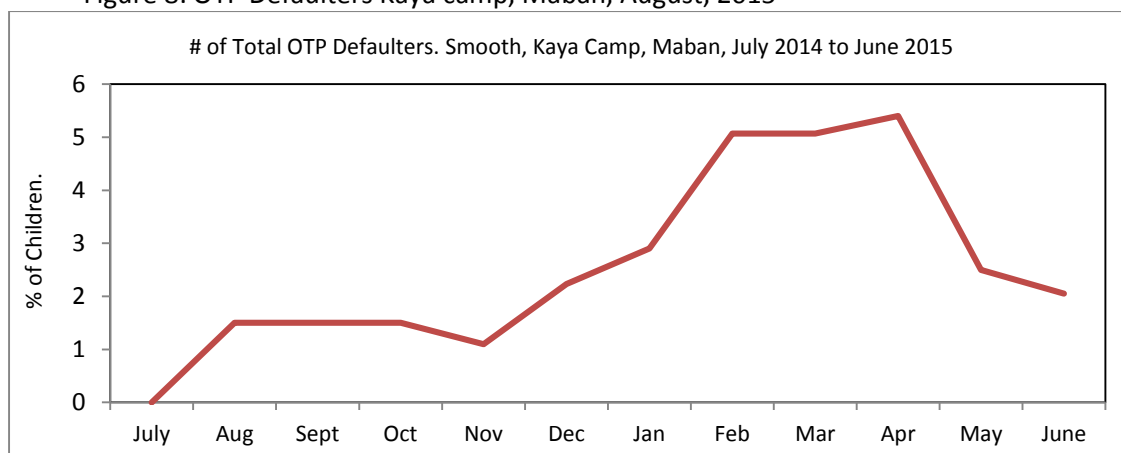
Data on defaulters:

According to the CMAM guidelines a defaulter is classified as a child who is absent for treatment for three consecutive visits.

Analysis of OTP defaulters' data

In Kaya OTP from July 2014 to June 2015, 491 children were exited after receiving treatment. Of them 2.5% children have been defaulted. The figure below shows that the defaulter rate for OTP went up from February and continues to May 2015. However, according to the SPHERE standard (<15%), the Kaya OTP defaulter rate is within the acceptable level, figure: 8.

Figure 8: OTP Defaulters Kaya camp, Maban, August, 2015



The database and record keeping in Health Facility (OTP), in Kaya camp

The CMAM programme monitoring data provided by the IMC team were useful and allowed the analysis of some important indicators of the CMAM programme that are essential for SQUEAC assessment and to understand the service qualities of the programme. The data were found consistent and available for some of the important indicators of the OTP programme.

During the assessment the OTPs the admission cards and the registers have been examined by the assessment team to better understand the quality of record keeping. The team checked randomly selected 30 cards in OTP, found 80 percent card was not filled fully, while more than 46% cards was not filed correctly. One third of OTP cards' information did not match with register. Therefore record keeping of this programme need to improve further with regular supervision and continuous training.

3.1.2 QUALITATIVE DATA⁷

For the qualitative part of the assessment seven blocks from Kaya camp were systematically visited and key stakeholders of CMAM programme were interviewed and consulted to better understand how community perceives this programme, how they appreciate the services and how to improve the access and services of CMAM programme in Kaya camp. Below are the summary of the key findings from community assessment:

3.1.2.1 LOCAL UNDERSTANDING OF CHILDHOOD ILLNESS AND MALNUTRITION

Most refugee informants were able to differentiate malnutrition from other childhood illnesses. Similarly, most of the key informants were fairly familiar with different signs and forms of malnutrition, such as thinness, low weight, lack of blood, oedema, loss of appetite, diarrhoea, retarded growth, whitening of children gum and general body weakness.

3.1.2.2 TREATMENT OF ACUTE MALNUTRITION AND OTHER ILLNESS

Most of the refugee informants mentioned that they sought solution from health facilities for the treatment of acute malnutrition. However, some community members indicated they seek solution from traditional healer for sick child if the treatment from health facility fails.

3.1.2.3 FACTORS INFLUENCING ACCESS TO CMAM SERVICES

The availability and provision of good OTP and TSFP quality services coupled timely nutrition supply (no stock out) and integrated MUAC screening of children at all contact points in the health facility was a top booster for the refugee to access and uptake of the CMAM services in Kaya camp as shown in table 3. The integration of health and nutrition services at health facility level helped identification and recruitment of children with acute malnutrition. Additionally, the community appreciation of CMAM treatment outcome was found among a top enabler for the community to access the service.

Insecurity due to civil war in South Sudan was a leading barrier to deliver the CMAM service and community access to it. Due to insecurity situation, the three OTP sites decentralized into one central site as well the TSFP services deliver at two health facilities. The insecurity led high turn of staff, closure of health facilities and loss of supply during insecurity incidents in Kaya camp.

Inadequate incentive to CHPs, MSG lead mother and nutrition staff was identified as top barrier for CMAM program. The CHPs worked for half day for five days and MSG met monthly that minimize the volunteers' interaction with community, and limited their working hour, such as identification and referral of children of acute malnutrition.

3.1.2.4 COMMUNITY STRUCTURES, LEADERSHIP AND GROUPS

Kaya refugee camp is structured in 67 sheiks with one elected leader representing each block. These leaders with support UNHCR and partners are responsible for block administration, safety and security of the refugee. They also disseminate information and mobilizing the refugees for campaigns, such as health and nutrition related services. Imam is a top religious leader and highly respected by the community. Imam leads the worship at mosque and makes important announcements after prayer. International Medical Corps recruited and trained 67 Community Health Promoters (CHP) for the community-based health and nutrition programme in the camp.

⁷ For more information, please refer To Community Assessment Report, CMAM prog, Hagadera camp, Dadaab refugee camp, Kenya, March, 2015.

3.1.2.5 COMMUNICATION CHANNELS

The refugee leaders (Sheiks) regularly meet with partners, and subsequently disseminate information to the refugees in the camp as a main communication channel. The men and women attend the meeting and sheiks convey important messages to the communities. In addition, the partners also use public address system to disseminate information and reported as it reached the audience effectively in Kaya camp. International Medical Corps also disseminate health and nutrition information effectively through home to home visit by CHPs and MSGs.

3.1.2.6 COMMUNITY MOBILIZATION STRATEGY

The community engagement programme for CMAM in Kaya refugee camp is strong which is implemented by 61 CHPs who are based in the communities, on average a CHP for 85 households. The six CHPs' supervisors, under community health program coordinator supervision, closely supervise and support the CHPs. CHPs conduct active case finding at household level through home to home visit in their assigned block and refer SAM and MAM cases to health facilities. The CHPs also involve regularly in mass MUAC screening campaign in the camp. CHPs conduct home visits every morning to conduct health education, trace absentee and defaulters while they visit homes to screen pregnant mothers, and children under one and five years old for immunization and any illness. The supervision and coordination of CHP is fairly good.

3.2 STAGE 2: SMALL AREA SURVEY

In second stage of SQUEAC assessment, utilises the data (qualitative and quantitative) that was gathered and analysed in stage one. The assumption and/or question that generate sometime needs further investigation to better understand and to validate the findings of stage one. In Kaya camp, the SQUEAC assessment has generated one question from the stage one data: "Does the blocks close (i.e. within 15 minutes walking distance) to CMAM service delivery point have high coverage (>90%) and blocks far away (more than 30 minutes walking distance) from CMAM service delivery point have low coverage (<90%).

To test this hypothesis 4 Blocks were selected systematically, 2 Blocks from far away from OTP sites and 2 Blocks close to the OTP sites and surveyed.

Hypothesis formation

Trailing the question above, a hypothesis was generated: "blocks that close by CMAM service delivery point has high coverage rate while blocks that far away from CMAM service delivery point has low coverage rate". Based on the coverage threshold for camp setting noted in SPHERE minimum standard, $\geq 90\%$ coverage was defined as minimum coverage rate to compare with.

Sample size & case findings:

The sample size was not necessary to calculate in advance for small area survey. The survey sample size was the number of SAM & MAM children found in the survey in the selected blocks by one day; as in this stage programme coverage is not calculating rather testing a hypothesis.

To test the hypothesis, blocks C2 & C3 were selected as close by blocks to CMAM service point (Kaya main clinic), while blocks F4 & F5 were selected as far away blocks from CMAM service point and surveyed. Selected 4 blocks were surveyed by 8 teams in one day to find SAM and MAM cases, whether they are in the programme or not in the programme, and the recovering SAM and MAM cases.

The data was collected using door to door case-finding methods to find current cases of SAM and MAM as well as recovering cases for both SAM and MAM. Therefore almost all children age 6 to 59 months were measured in surveyed blocks. Pre-designed questionnaires were used to record both SAM & MAM cases, including current cases and recovering cases (Annex 3). A semi structured interview was carried out using separate questionnaires for the mothers/caregivers of malnourished children (SAM & MAM) that were attending or not attending the programme to find out and record the reasons for both attending and 'not attending the programme' (Annex 4 & 5).

Case Definition

- Children 6-59 months;
- For SAM, MUAC <11.5, and/or Bilateral pitting oedema and recovering OTP cases with MUAC >11.4 still admitted in OTP
- For MAM, MUAC <12.5 cm to ≥11.5cm, and recovering SFP case with MUAC >12.4 still admitted in SFP

3.2.1 STAGE 2 'SMALL AREA SURVEY FINDINGS'

Active SAM cases found

In four surveyed blocks for 'Small Area Survey' in total 6 SAM cases were detected, of which all five were found to be in programme (Table: 1).

Table: 1 Active SAM cases found 'Small Area Survey' Kaya camp, Maban

Distance for service point	TOTAL SAM CASE FOUND	IN PROG.	NOT IN PROG.
CLOSE BY BLOCKS (C2 & C3)	1	1	0
FAR AWAY (F4 & F5)	5	5	0

Decision rule for OTP coverage

- Coverage threshold for camp: ≥90%
- Hypothesis 1: In blocks close by CMAM service delivery point have high coverage
- Number of Children meeting case definition=1

$$d = \left\lceil n * \frac{p}{100} \right\rceil = 1 * \frac{90}{100} = 1$$

→ 1 child enrolled, so, hypothesis 1 is confirmed, blocks close by CMAM service point may have high coverage rate.

- Hypothesis 2: In blocks far away from CMAM service delivery point have low coverage
- Number of Children meeting case definition= 5

$$d = 5 * \frac{90}{100} = 4.5$$

→ 5 children enrolled so hypothesis 2 is not confirmed (<4 cases need to be in programme. to qualify as low coverage), therefore, blocks far away from CMAM service point may not have low coverage rate.

Active MAM cases found

The survey detected twenty eight MAM cases, of which 20 cases were found to be in programme and 8 were not in programme see table: 2.

Table: 2 Active MAM cases found 'Small Area Survey' Kaya, Maban

Distance for service point	TOTAL MAM CASE FOUND	IN PROG.	NOT IN PROG.
CLOSE BY BLOCKS (C2 & C3)	10	7	3
FAR AWAY (F4 & F5)	18	13	5

Decision rule for SFP coverage

- Coverage threshold for camp: $\geq 90\%$
- Hypothesis 1: In blocks close by CMAM service delivery point have high SFP coverage
- Number of Children meeting case definition=10

$$d = \left\lceil n * \frac{p}{100} \right\rceil = 10 * \frac{90}{100} = 9$$

→ 7 children enrolled (<9), so hypothesis 1 is not confirmed, blocks close by to CMAM service point may not have high coverage rate for SFP.

Hypothesis 2: in blocks far away from CMAM service delivery point has low coverage

Number of Children meeting case definition = 18

$$d = 12 * \frac{90}{100} = 16.2$$

→ 13 children enrolled (<16), so hypothesis 2 is confirmed, blocks far away from CMAM service point could mean low coverage rate for SFP.

3.3 STAGE 3 'WIDE AREA SURVEY'

In Stage three the surveyors actively look for acute malnourished cases from the selected sampling frame to see if they are in programme or not in programme. In this stage, a Bayesian-Software was used to predict the prior for likely coverage value, and to calculate a minimum sample size (active SAM/MAM cases should be found in the survey). Ultimately, the survey data uses to estimate the programme coverage value.

3.3.1 SUMMARY OF BOOSTERS AND BARRIERS

The lists of comprehensive boosters and barriers were derived from well triangulated evidence in stage 1 and stage 2 by the assessment team. The scoring of boosters and barriers was done by the assessment team based on the weight of each element. The scale used rating from 1 to 10 to score for both 'barriers' and 'boosters'. Eight assessment teams scored each booster and barrier separately, the final scoring for each booster and barrier was agreed and assigned by using the average score. These average score for each category were added to "build up" the coverage score. The scores of Boosters are "added" to zero (i.e. lowest possible coverage) and the scorers of barriers are "subtracted" from 100% i.e. highest possible coverage (see Table: 3).

Table: 3 Boosters & Barriers, Kaya camp, Maban, South Sudan August 2015

Boosters	Values	Values	Barriers
Good outreach activities	8	3	Long distance to OTP site
Availability of free CMAM services	7	2	Long waiting time at health facility
Good referral system	3	1	Shortage of RUSF
Integration of services	6	5	Poor counselling at discharge
Involvement of community leaders	4	7	Insecurity (internal & external)
Support of men to child care	2	6	Low incentives to CHPs, MSG & nutrition staff
Short distance to TSFP	8	2	Inadequate training to CHP on MUAC screening
Good nutrition services	10	4	Staff turnover
Good health seeking behaviour	5	5	Language barrier
Community appreciates the Rx outcome.	7	2	Preference to traditional healers' treatment.
Total	62.6	37	
Added to Minimum Coverage (0%)	62.6+ 0= 62.6	100- 37=63	Subtracted from Maximum Coverage (100%)
	62.2+63		

3.3.2 FORMING THE PRIOR⁸

The 'Prior' or 'Mode' for wide area survey is generally set using the prior information from stage one and two SQUEAC investigation to make an informed assumption about the most likely coverage value for the programme and then express it as a probability density. Based on the findings from stage one and two for the Kaya SQUEAC coverage assessment, the assessment team decided to calculate the sample size for the 'Wide Area Survey', (3rd Stage), assuming that the programme coverage for OTP going to be 85% and SFP 80%.

Prior for OTP

Using Bayesian-SQUEAC software the 'mode' was set for OTP at 85% with speculation of lowest possible coverage 65% and highest possible coverage at 100%, building with $\pm 10\%$ precision. The prior was then described using the probability, alpha prior =35.0 and beta prior =6.6 The software then automatically calculate sample size, 40 SAM cases to be found in survey regardless weather they are in the programme or not in the programme, (Figure: 9) .

Prior for SFP

Using Bayesian-SQUEAC software for SFP the 'mode' was set at 80% with speculation of lowest possible coverage 55% and highest possible coverage 95% with $\pm 10\%$ precision. The prior is then described using the probability, alpha prior =34.4 and beta prior =9.2. The software then automatically calculated the sample size, for SFP 42 MAM cases need to be found weather they are in the programme or not in the programme (Figure: 10).

Figure: 9 Prior for SFP Coverage, Kaya, Maban

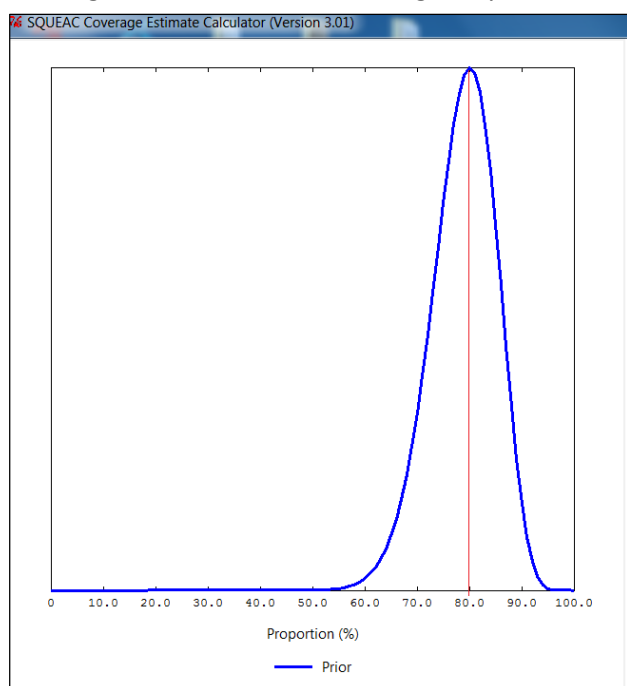
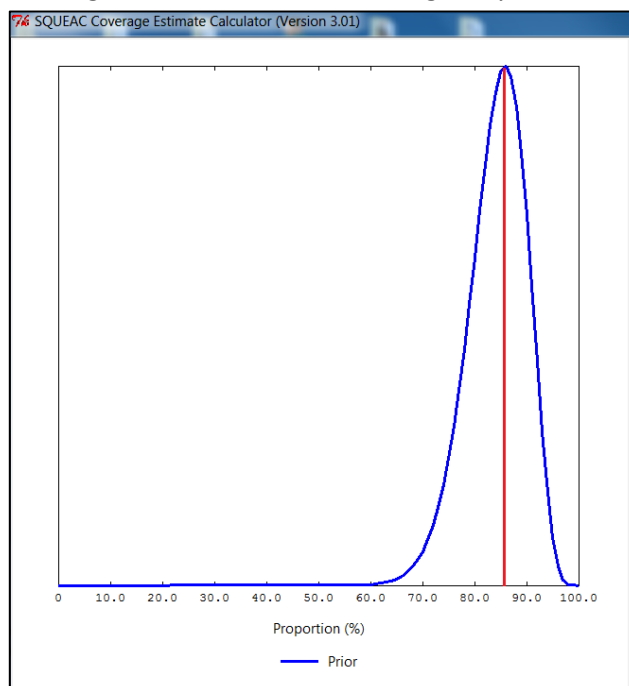


Figure 10 Prior for OTP coverage, Kaya, Maban



3.3.3 Estimation of sample size and sampling frame

⁸ PRIOR is a statistical representation of our belief in programme coverage

For the Wide-Area Survey stratified sampling method was used. A two-stage sampling procedure was employed to estimate the sample size and selecting the sampling frame. Sample size was calculated, using simulation of the Bayesian-SQUEAC software by setting the 'Prior' coverage value. To estimate the sampling frame below information was obtained and used to estimate that number of blocks to be sampled:

- i) The proportion of the population living in the survey blocks=1409
- ii) percentage of population age less than five years old (18%, according to UNHCR progress report) and
- iii) Based on 2014 Nutrition survey⁹ the MUAC prevalence of SAM was 4.1% (CI 2.9%- 5.9%) and prevalence of MAM was 3.8% (CI 2.8% - 5.2%) among children 6-59 months
- iv) Using the formula it has calculated that the minimum number of blocks to sample was 6 to find 40 SAM and 42 MAM cases. The blocks were then selected using stratified sampling method, covering all sections in Kaya camp to find both SAM and MAM cases.

Sampling Frame

In order to ensure fair representation, Kaya camp map was used to select blocks. Sampling frame was choose using systematic interval, in total 7 blocks (1 extra block added to find adequate SAM cases) was selected for the survey.

Case Finding Methods

To find SAM and MAM cases and recovering cases of SAM and MAM cases a door to door case finding method was used, which was same as used in 'Small Area Survey' (section. 3.2). This method allowed for the inclusion of all, or nearly all, current MAM and SAM cases in all sampled blocks. As anticipated that almost all suspected MAM and SAM children in surveyed blocks has been measured within two days by 8 teams. Cases that were found 'not in CMAM programme (SFP/OTP)' were referred to the nearest SFP or OTP centre, as appropriate.

3.3.4. Findings of Wide Area Survey

SAM Cases found in different Blocks

In wide area survey 1 SAM cases were found and 1 SAM case was found in programme. No SAM cases found in 6 blocks out of 7 blocks that was sampled.

MAM Cases found in different Blocks

Out of 46 MAM cases 36 cases were found to be in programme while 10 cases found are 'not in programme' and 44 SFP recovery case was found in 7 blocks that was surveyed (table 5).

Table: 5 Wide Area Survey, SFP coverage SQUEAC, Kaya, August 2015

Blocks	Total MAM cases found	MAM cases in Prog.	MAM cases not in prog.	Recovering Cases in SFP
C1	1	1	0	0
C5	4	2	2	5
D4	9	7	2	7
E1	9	6	3	9
E2	4	4	0	5
E5	10	8	2	5
F1	9	8	1	13
Total	46	36	10	44

3.3.5 COVERAGE ESTIMATION

⁹ UNHCR NUTRITION SURVEYS, DADAAB, August-September 2014 Preliminary report- October 2014

To estimate the programme coverage rate data from the 'Wide Area Survey' and the pre-set Bayesian-SQUEAC prior was used. For this survey 'single' coverage rate was estimated and reported. To calculate the 'Single coverage' for OTP with 95% Credible Interval (CI) Bayesian-SQUEAC software was used while same Alpha and Beta values and precision have been used from the pre-set 'Prior'.

Single Coverage for OTP & SFP:

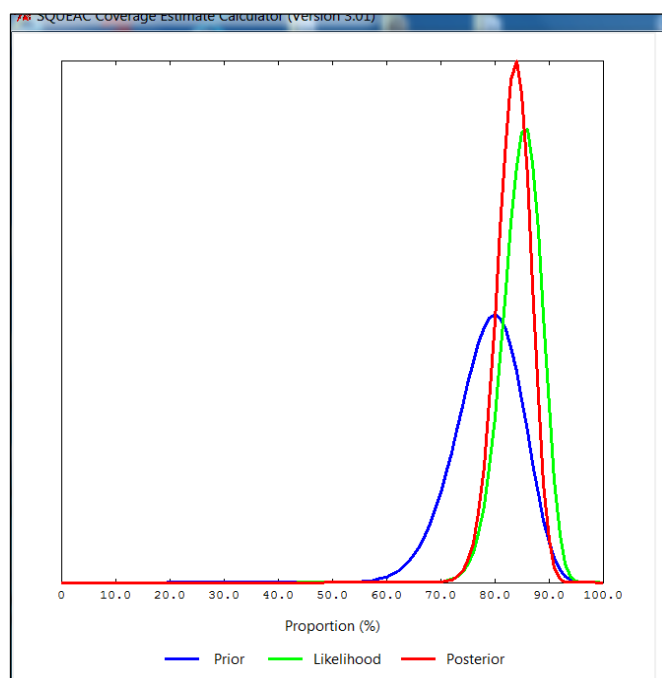
To calculate the 'Single coverage' for OTP & SFP below equation was used.

For OTP single coverage estimation as denominator **7**(1+ 0+ 6 +0, current SAM in prog + current SAM cases not in programme. + recovering cases + recovering cases not in programme) and the numerator **7** (1 + 6 current SAM cases in programme + recovering cases). Due to small sample size for OTP single coverage estimation Bayesian calculator was not able to use. However, survey data it calculated 100% coverage for OTP.

Table: 6 Single coverage estimation for OTP & SFP, Kaya Camp, Maban, August, 2015

Description of SAM survey data		Equation
$K =$ a correction factor	3	$R_{out} \approx \frac{1}{k} \times [R_{in} \times \left(\frac{C_{in} + C_{out} + 1}{C_{in} + 1} \right) - R_{in}]$ OTP data $R_{out} \approx \frac{1}{3} \times \left[6 \times \left(\frac{1 + 0 + 1}{1 + 1} \right) - 6 \right] - 0$
$C_{in} =$ Current SAM cases in the programme	1	
$C_{out} =$ Current SAM cases not in the programme	0	
$R_{in} =$ Recovering SAM cases in the program	6	
$R_{out} =$ Recovering SAM cases not in the programme	0	
Description of MAM Survey data		Equation SFP data
$K =$ a correction factor	3	$R_{out} \approx \frac{1}{3} \times \left[47 \times \left(\frac{36 + 10 + 1}{36 + 1} \right) - 47 \right] - 4$
$C_{in} =$ Current SAM cases in the programme	36	
$C_{out} =$ Current SAM cases not in the programme	10	
$R_{in} =$ Recovering SAM cases in the programme	47	
$R_{out} =$ Recovering SAM cases not in the programme	4	

Figure: 11 Single Coverage SFP Kaya, August, '11



For SFP single coverage estimation as denominator 97(36+ 10+ 47+4, current MAM in prog + current MAM cases not in programme. + recovering cases + recovering cases not in programme) and numerator 83 (36 + 47 current MAM cases in programme + recovering cases), was inserted to Bayesian SQUEAC calculator while same and precision have been used from the pre-set 'Prior'. The Bayesian-Software estimated 'Single' coverage at **83.9%** rate with Credible Interval of (CI 77.0% - 89.0%), and P value= 0.4106.

The z- test revealed that there is a reasonable overlap between the 'prior', the 'posterior' and the likelihood SFP single coverage estimation (figure: 11).

3.3.6 BARRIERS TO ACCESS IDENTIFIED BY WIDE AREA SURVEY

Wide area survey interviewed the all mothers/caretakers of active MAM cases who found 'attending' and who found 'not attending the programme'.

The interview included for caregiver who are 'not attending' the programme, if they know the condition of their children and if they know the programme that can treat acute malnutrition cases.

Caregiver who are 'attending' the programme, they were asked why and how they got in to the programme?

Reasons given by mothers/caregivers of MAM cases 'attending' & 'not attending' the programme:

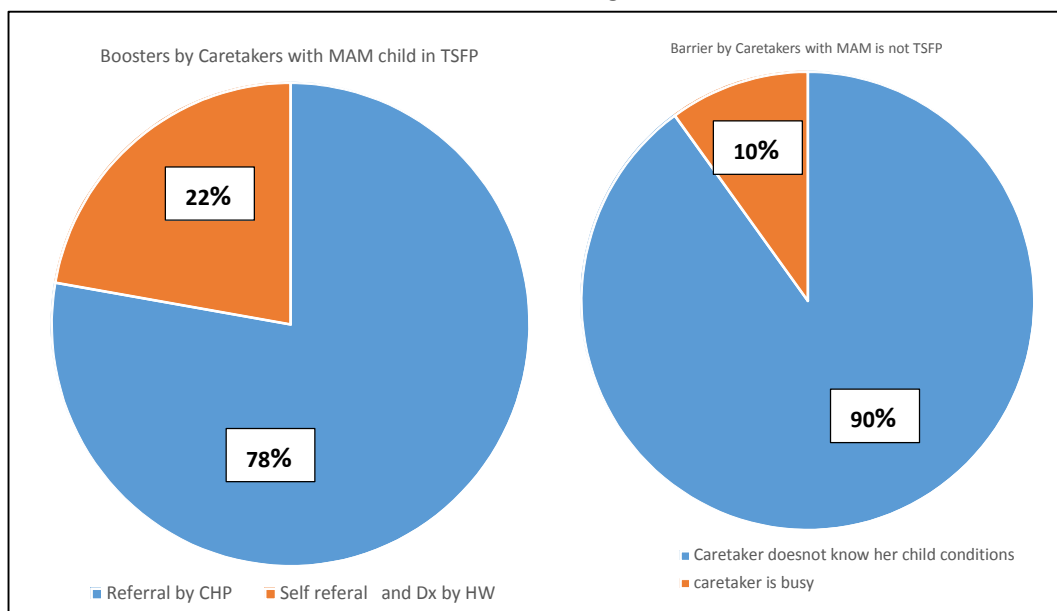
Boosters (attenders):

Out of 36 mothers who were attending the Kaya TSF programme at the time of the survey, the reasons they mentioned for attending the programme; 8 mothers/caregivers were self-referred to TSFP for screening and admission as they realised the deteriorating condition of their children. The remaining 28 mothers/caregiver said their children were screened and referred by CHPs to TSFP.

Barriers (non-attenders):

Out of 10 mothers/caregivers that found not attending the programme, the reasons given by them for not attending the programme, 9 of them does not know their children were malnourished. While 1 mother/caregiver said she knew child was unwell but did not take the child to health facility due her workload and competing priorities (see Figure 12).

Figure: 12 Reasons given by the caregivers of MAM cases for 'attending' & 'not in programme'
Aug. 2015



4. DISCUSSION

In this SQUEAC assessment, the team collected some primary and secondary data both qualitative and quantitative, and analysed them to better understand the programme and dynamics associated with access and coverage. The main focus of this assessment are i) if performance of the programme is up to the standard, ii) if the community easily access services from the programme? This assessment also aimed to improve the quality of services as well as access and coverage of the programme by developing and implementing a Joint Action Plan (JAP).

OTP DATA ANALYSIS:

The secondary data (routine programme monitoring data) that was provided by the team to analyse for the SQUEAC assessment was not readily available for all essential indicators as routine programme monitoring data. The programme team were not gathering the data from OTP cards and registers on a regular basis and utilising them as programme monitoring tools. However, some programme performance data are used for donor report such as programme 'exit' data. To understand the service qualities, utilising programme data and use them as regular programme monitoring tools can help to improve the quality and outcome of the programme.

Kaya programme performance data suggested that the programme was meeting all the SHPERE minimum standards adequately. The discharged cured rate was recorded as 78% which is >75% set by the SPHERE minimum standards. The defaulter rate is also low (2.5%) and within SPHERE minimum standard. Some information on defaulter was recorded to understand why care givers are defaulting. However, those data was inconsistent, therefore not analysed for this report. It is important to collect and monitor the programme defaulters' data accurately to understand why caregivers default from the programme hence to take corrective measure.

QUALITATIVE DATA ANALYSIS:

This community assessment revealed that community engagement programme for CMAM programme is strong and seems positive impact on the CMAM service, namely timely case finding and recruitment, good case retention and improved health seeking behaviour. The semi-structure interview with 36 caretaker of children with MAM in the TSFP, 28 (78%) of them reported that CHP identified and referred children with MAM to health facility. In order to sustain with this success, however, the programme will depend on genuine community involvement of community figures and caretakers in supporting community engagement for CMAM in Kaya camp. It includes integration of community engagement for CMAM into other existing community-based initiatives and increasing refugees' ownership of the programme. Tailoring community engagement activities to the local context that activities take full advantage of existing community systems and structures, and the availability groups and volunteers to facilitate establishment of a sustainable program and providing maximum coverage of community engagement programme across the camp. So the community engagement program should be integrated into MSGs, WASH team, refugee leadership systems and committees.

The CHPs should lead and support community engagement efforts. Then sheiks, caretakers, traditional healers and other community figures would support community sensitization and case finding and referral to increase case finding and referral as well as increase their engagement in the programme.

It also equally important careful consideration and managing of the various barriers and enablers which have been identified during this community assessment in order to improve the refugee's access to and uptake of the CMAM service. This includes improving caretaker counselling, assigning interpreters at health facilities and strengthening

CHPs' capacity. In order to reinforce CHPs' capacity, continuous training in community engagement and communication skills, provision of appropriate job-aids and close technical support should be provided. Moreover, the monitoring of outreach programme and analysis CHPs' report and provide feedback to CHPs should be strengthened.

STAGE TWO & STAGE THREE:

The stage two, assessment focused on areas that near and far way from both OTP & SFP service delivery points, assuming higher and lower coverage rate, respectively. The findings of the 'small area survey' confirmed that there is no difference in OTP and SFP coverage was found in blocks near & far from CMAM service delivery points. However, overall coverage for OTP was found high while low in TSFP coverage all blocks when compare with SPHERE minimum standard $\geq 9\%$ for camp setting. However, to better understand the reason behind for the low coverage in SFP a regular data analysis and discussion with block leaders are an essential step to further increase the programme coverage for TSFP, including regular meeting with volunteers.

The wide area survey data estimation of overall programme coverage for both TSFP and OTP revealed that the TSFP did not meet the standard that was set by SPHERE at $\geq 90\%$, for camp setting. However, this result is similar to the first SQUEAC survey conducted to TSFP in Gendrassa camp in 2013.

The programme identified some important barriers such as caretakers do not know their child malnourished and due competing priorities they were not attending the programme. To address the barriers of this programme; detailed recommendations are provided in the joint plan of action for community mobilization and to improve the CMAM services, see section below; table 6.

LIMITATIONS:

The major challenge of this assessment was low SAM prevalence rate at the time of the survey hence the surveyors, were not able to find adequate number of cases to estimate coverage of OTP, using Bayesian SQUEAC calculator.

5. JOINT PLAN OF ACTION

The SQUEAC assessment in Kaya refugee camp made four consolidated recommendations to improve the service qualities of current CMAM programme, increases access in services and continue to keep high coverage rate. To implement the recommendations below action plan has been developed in association with UNHCR, WFP, IMC and other relevant partners.

Table 6: International Medical Corps and UNHCR, Draft Joint Action Plan, September –December 2015, Kaya Refugee camp

	Strategy /Activity	Performance indicator	Target	Priority	Time	Responsible	Applicable Internal Resources	External Resources Needed
1	Community Participation							
1.1	Train and involve key community figures(THA, Imam, women groups etc) in community engagement for CMAM	# of community figures trained and engaged	40	Medium	Sept-Dec	IMC		
1.2	Strengthen community leaders-IMC coordination meeting by involving women and others	# of community leaders conducted	2	Medium	Sept -Dec	IMC		
2	Community Engagement-outreach							
2.1	Train MSG-lead mothers in MUAC measurement and referral, and engage in community engagement	#lead mother trained and engaged	100	Medium	Sept-Dec	IMC		
2.2	Establish music and dram team and engage them for community sensitization	Music and dram team established and engaged	Yes/No	Medium	Nov	IMC		
2.3	Provide on-job training for CHPs in MUAC measurement by integrated supervisors	# support provided by CHPs supervisors and nutrition teams	4	Medium	Sept - Dec	IMC		
2.4	Motivate the CHPs by recognition of their work by community and providing certificate of appreciation	# of CHPs received motivation award and materials	10	High	Sept - Dec	IMC		
2.6	Train CHPs in individual counselling on MUAC result	# of CHPs trained	67	High	Sep	IMC		
2.7	Promote individual counselling to caretakers by CHPs at Household level	% of caretakers, who referred by CHPs, received counselling	100%	High	Sept-Dec			
2.8	Adapt appropriate IEC materials and provide to CHPs	# CHPs received IEC materials	67	Medium	???	UNHCR		

3	Technical Support, mentoring and monitoring							
3.1	Analyze CHPs' report data and use to improve the outreach program and provide feedback to CHPs	# analysis data done and used	2	High	September Dec	IMC		
3.2	Analyze outreach report and provide feedback to CHPs	# CHPs and their supervisors received feedback weekly	67	High	September	IMC		
3.3	Analyze routine program monitoring data and use to improve the program	# times the secondary data analysis done	2	High	Sep and Dec	IMC		
3.4	Improve data collection and recording at nutrition site	% sampled cards correctly and fully filled	90	High	Oct and Dec	IMC		
3.5	Strengthen close supervision support to CHPs by CHP assistant	# CHP assistant supervised and reported weekly	6	High	Sep- Dec	IMC		
4	Improve the quality of OTP and TSFP services							
4.1	Decentralize OTP service in health clinic-F	OTP service established at health post	Yes/No	High	September	IMC		
4.2	Improve on nutrition individual counselling by on-job training to nutrition assistants	# Nutrition staff trained	8	High	Sept-Dec	IMC		
4.3	Strengthen the nutrition counselling to care takers	% of care takers received individual counseling during admission and discharge	100%	High	Sept- Dec	IMC		
4.5	Further investigation the causes of long waiting hours and address the problem	Investigation on causes of long waiting done	Yes/no	High	Oct	IMC		
4.6	Provide regular on job training and technical support to nutrition workers	Regular supported done	Yes/No	High	Sept-Dec	IMC		

6. ANNEXES

Annex: 1 Schedule: SQUEAC Training & Assessment, Kaya Camp, August 5th to April 20th 2015.

Time	Activity	Facilitator
Tuesday August 4	Arrive in Juba & Meeting IMC team in Juba	
Day 1 Wednesday, August 5	Travel to Maban	
Day 2 Thursday, August 6	Classroom training - Opening Session - Introduction - Schedules - Overview of the SQUEAC methodology	Lovely/Alice
Day 3 Friday, August 7	Classroom training - Group work identify Programme's boosters and Barriers - Overview of the qualitative data collection objectives, - Overview FDG , KI and SSI methods - Review of the questionnaire - Distribution of task to the assessment team	Lovely/Melaku
Day 4 Saturday August 8	Field data collection Collection of some Contextual Data from the villages: - Local leaders - TBAs - Traditional healer - Health extension workers, health development armies, - Community Volunteers etc.	SQUEAC Team
Day 5 Sunday August 9	Day Off	
Day 6 Monday, August 10	- Analysis qualitative data - Developing Seasonal Calendar - Qualitative Data analysis - Analysis some programme routine data - Select OTP sites for data collection.	Melaku/Lovely
AM - Day 7 Tuesday, August 11	Field data collection - Information collection from OTP & SFP - FGD with OTP Mothers - Health Centre staff - Developing Seasonal Calendar with OTP mothers - Collection data from stakeholders (health, agricultural, education and social office)	
PM- Day 7 Tuesday, August 11		
Day 8 Wednesday, August -12	Classroom training - Contextual data analysis (Field data) - Identification of potential barriers and boosters of coverage - Preparation for Small area survey - Selection area with high and low admission - Going through the methodology and Questionnaires for small area survey	Melaku
Day 9 Thursday, August 13	Field data collection Small Area Survey	SQUEAC Team
PM- Day 9 Thursday, August 13	Analysis of small area survey data	Lovely/Melaku

Day 10 Friday Aug 14	Classroom training • preparation for wide area survey • Booster & Barriers scoring (qualitative) • Bayesian SQUEAC • Calculation of samples and villages for 'wide area survey'	Lovely/ Melaku
Saturday August 15	Field data collection Conducting Wide Area Survey	SQUEAC Team
Day 12 Sunday August 16	Day off	
Day 13 Monday August 17	Classroom training • Data compilation of wide area survey • Estimations of coverage • Recommendation • Develop Joint Action Plan (JAP) • BSC	Lovely/Melaku
Day 14 Tuesday August 18	• Working on report • Presentation of preliminary results to field team	Lovely/Melaku
Day 15 Wednesday, August 19	Travel back to Juba	
Day 16 Thursday August 20	Debriefing with IMC	

Annex: 2 List of Participant, SQUEAC Training & Assessment, Kaya Camp, Maban, August, 2015

First Name	Last Name	Position	Organisation	Email Address
Peter	Daniel Ache	Nutrition Assistant	SP	ewii@samaritan.org
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Jalal	Laka Sadala	Nutrition Assistant	Medair	christine.restock@southsudan.medair.org
Ezadin	Maida Tillim	Nutrition Assistant	Medair	
Amos	Nyiwe	Nutrition Assistant	RI / CHD	augustino_d@yahoo.com (RI)
Sila	Chounye	Nutrition Assistant	RI/CHD	
Juma	Hasan	Nutrition Assistant	RI/CHD	mayak.anok@yahoo.com (CHD).
Abe	Kiri	Nutrition focal person	UNHCR	kiri@unhcr.org
Otto	Sisto	Nutrition officer	IMC	ss-kaya-nutrition@internationalmedicalcorps.org
Muki	Michael	TSFP supervisor	IMC	ss-gendrassa-nutrition@internationalmedicalcorps.org
Ladu	Michael	Outreach supervisor	IMC	ss-gendrassa-medicaloutreach@internationalmedicalcorps.org
Alfred	Nyolija	Lead community mobilizer	IMC	ss-kaya-medicaloutreach@internationalmedicalcorps.org
Alice	Chepngetich	Nutrition manager	IMC	akiplangat@internationalmedicalcorps.org
Issack	Nyanda	Clinical Officer	IMC	nyanda.isaac@yahoo.com
Patrick	Guma	ME officer	IMC	ss-maban-meofficer@internationalmedicalcorps.org
Frank	Mashapa		UNHCR	mashapa@unhcr.org
Jacob	Mayen		JDF	marialeelavathi@johndaufoundation.org

ANNEX: 3 Survey data collection form 'Small/Wide area survey' Kaya Camp, Maban. August 2015

SQUEAC: Small/Wide Area Survey SAM/MAM, Kaya camp, Maban , August-2015										
Date: ____/____/____ Team____ Team mem-ber_____										
#	Child's Name	Mother's Name	Boma	Age (Month)	SEX		MUAC	SAM in the prog.	SAM not in the prog.	OTP recover-ing Cases in prog.
					M	F				
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

ANNEX: 4 A Small/ Wide area survey Questionnaire for the guardians of the children (Active SAM and MAM cases) NOT in the programme

Name of Child: _____ Payam: _____

Village: _____ OTP site: _____ Date: _____

1. DO YOU THINK THAT YOUR CHILD IS MALNOURISHED?

YES ☐

NO ☐

2. DO YOU KNOW A PROGRAM WHICH CAN HELP MALNOURISHED CHILDREN?

YES ☐

NO ☐

If answer is NO stop

If yes, what is the name of the programme? _____

3. WHY DIDN'T BRING YOUR CHILD IN FOR CONSULTATION TO THIS PROGRAMME?

- Too far (What distance to be travelled with foot? how many hours?)
- I do not have time/too occupied
- To specify the activity which occupies the guardian in this period _____
- The mother is sick
- The mother cannot travel with more than one child
- The mother is ashamed to go the program (no good cloths etc...)
- Problems of safety
- The quantity of services too poor to justify to go
- The child was rejected before.
- The child of other people was rejected
- My husband has refused
- The guardians do not believe that the program can help the child (or prefers the traditional medicine, etc.)
- Other reasons: _____

4. Was the CHILD ALREADY ADMITTED IN the PROGRAMME before?

YES ☐

NO ☐

If answer is NO stop, if answer is yes continue,

- Why isn't s/he registered any more at present?
- Defaulted, when? Why?
- Cured and discharged from the programme (When?)
- Discharged but not cured (When?)
- Others: _____

5. If you decide to use OTP/SC service, where and when you want to use of CMAM service?

6. Who decide or influence you take or NOT to take a child to a health facility?

7. How do you deal with a child who sick? Where you first seek a solution for a sick child? (**Probe:** home remedies with herbs used and which herbs are used, are the traditional treatment sought and administrated before children are taken to a health facility? Change of trend on the use of these methods, OTP)

8. Do you (women caregivers) breastfeed their babies under six months of age? At what age do mother start to give additional liquids to infants? What about complementary soft foods? How many times per day does a mother feed a 12 month-old infant? What is the child fed?

(Thank the guardian)

QUESTIONNAIRE FOR COVERED SAM CASES

District: _____

Health Facility: _____

Village: _____

Ethnic: _____

Name of the Mother: _____

Name of the Child : _____

Team: _____

Date: _____

1. Is this the first your child admitted in OTP/TSFP program?

☐ Yes → Q5

☐ No → Q2

2. How many times has your child admitted to OTP/TSFP the program?

☐ 1

☐ 2

☐ 3

☐ >3

3. Why is s/he returned to the program?

☐ A. The child discontinued treatment and then re-
turned.

a1. Why? _____

☐ B. The child was cured and relapsed

b1. Why? _____

4. Do you have other children admitted in the program?

☐ Yes

a1. How
many?

☐ 1

☐ 2

☐ 3

☐ No

5. Why did you decide to enroll your child in OTP/TSFP program? (multiple answers possible – mark the main reasons)

☐ a. Recognition of the disease in child

☐ c. Failed traditional treatment

☐ e. Short distance; estimation in km

_____ How many minutes to go on foot?

☐ g. Accessibility (not seasonally barriers)

☐ i. Availability of money for transport

☐ k. Support and encouragement of the husband

☐ m. Support and encouragement of parents with children

☐ o. Support and encouragement of neighbour

☐ q Program much appreciated by the community

☐ s. Availability food assistance

☐ u. Free charge service

☐ w. Know cured children

☐ y Other , Specify _____

☐ b. Disease diagnosed by health staff

☐ d .Referred by the traditional healer

☐ f. Minimal or no security problem

☐ h. Availability of transport

☐ j. Availability support and/or accompany during walking

☐ l. Support and encouragement of another family member

☐ n. Encouragement and referral of community worker and volunteers

☐ p. Support and encouragement of community leaders

☐ r. Program staff is friendly and patient

☐ t. availability of treatment

☐ v. appreciate outcome of treatment

☐ Availability of Plumpynut/Supt®

Comments: