



SQUEAC Report for East Pokot Sub- County

Baringo County

Kenya



Kamurio Dispensary East Pokot, Baringo County

DECEMBER 9-28, 2017





Acknowledgement

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Acronyms

ACF	Action Against Hunger
ARI	Acute Respiratory infections
BB	Barriers and Boosters
BBCMA	British Broadcasting Corporation Media Action
BBQ	Barrier and Booster Questioning
BFCI	Baby Friendly Community Initiatives
BSFP	Blanket Supplementary Feeding Program
CHEWs	Community health Extension Workers
CHMT	County Health Management Team
CHV	Community Health Volunteer
CHWs	Community Health Workers
CU	Community Unit
DHIS	District Health Information System
FGD	Focus Group Discussion
HRIO	Health Records and Information Officer
IMAM	Integrated Management of Acute Malnutrition
IPF	In-Patient facility
KEMSA	Kenya Medical Supplies Agency
KRCS	Kenya Red Cross Society
LMIS	Logistics Management Information System
LOS	Length of Stay
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MAM	Moderate Acute Malnutrition
MCA	Member of County Assembly
MOH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NDMA	National Drought Management Authority
NIWG	Nutrition Information Working Group
NSO	Nutrition Support Officer
OTP	Outpatient Therapeutic program
SAM	Severe Acute Malnutrition
SCHMT	Sub-County Health Management Team
SCHRIO	Sub-county health Records and Information officer
SCNO	Sub-county Nutrition officer
SD	Standard Deviation
SFP	Supplementary Feeding Program
SQUEAC	Semi Quantitative Evaluation of Access and Coverage
TBA	Traditional Birth Attendance
U5	Under five
UNICEF	United Nations Children Fund
WFH	Weight For Height
WFP	World Food Program
WVK	World Vision Kenya



EXECUTIVE SUMMARY

Baringo County borders Turkana and Samburu Counties to the North, Laikipia to the East, Nakuru and Kericho to the South, Uasin Gishu to the South West, Elgeyo Marakwet and West Pokot to the West. It is divided into 6 sub-counties namely Baringo Central, Baringo North, Marigat, Mogotio, East Pokot and Koibatek. It lies in the Rift Valley region. This survey was done in East Pokot Sub-county which is one of the sub-counties in Baringo County. It borders Turkana East to the North, Marakwet county and Baringo North sub-county to the West, Laikipia and Samburu county to the East, and Marigat sub-county to the South. It covers an average area of 4524.8Km with an estimated population of 163,549 (2017 projection based on 2009 population census with annual population growth rate of 2.6%. The proportion of U5 years in East Pokot is 16% with an estimated population of 29,439. East Pokot is sub-divided into seven (7) administrative divisions which are in two livelihood zones, Pastoral (Kolowa, Tangelbei, Akoret, Mond, Ngoron, Nginyang divisions) and Agro Pastoral (Churo division).

The County Department of health services with support of National Nutrition and Dietetics Unit in collaboration with WVK, UNICEF and WFP has been implementing IMAM Program in Baringo County and more so in East Pokot Sub-County. The intervention includes community screening, identification and management of severe and moderate acute malnutrition of children under five years and pregnant and lactating mothers under the Integrated Management of Acute Malnutrition (IMAM) Program.

The last coverage survey that was conducted in Baringo County was done in October and November 2015 and covered East Pokot, Marigat and Mogotio Sub-counties. Thus this assessment was done to identify the specific barriers and boosters to access of OTP and SFP programs in East Pokot sub -County as well as to assess the achievement of the previous assessment recommendations for East Pokot. All the three stages of SQUEAC Methodology were employed. Stage 1 involved identifying areas of low and high coverage as well as reasons for coverage failure using routine program data, any other existing data and qualitative data. Stage 2 involved confirming the location of areas of high and low coverage and the reasons for coverage failure identified in stage 1. This was done using the small-area survey. Stage 3 involved providing an estimate of overall program coverage using Bayesian techniques. Point and Single coverage estimate were calculated.

This SQUEAC was conducted from 8th to 28th December 2017. From the Bayesian coverage calculator, the posterior 'point coverage' for OTP in East Pokot was estimated at 45.9% (34.3% - 58.5%) and P- Value =0.902. 'Single coverage' for SFP in East Pokot, was at 29.7% (21.9% - 38.7%) and P- Value = 0.0106. there is small difference from the 2015 coverage of OTP 45.7% and SFP was 48.5%. Both OTP and SFP estimate coverage were below the recommended SPHERE standard of 50% for rural areas and thus considered not satisfactory.

Some of the boosters to coverage included CHVs knew their roles, community is aware of IMAM services, regular support supervision, integrated outreaches, good perception of the





program by care givers, staffs are trained on IMAM and leaders are used to mobilize for IMAM services.

Table I: A summary of Barriers and the Recommendations to improve coverage

Major Barriers to IMAM Program Coverage	A summary of the recommendations to improve coverage
<ul style="list-style-type: none"> ▪ Stock out of nutrition supplies ▪ Long distance/cost of transport to the nearest IMAM site ▪ Lack of CHVs motivation ▪ Sharing of nutrition supplies by beneficiaries ▪ Poor child care practices: irresponsible including care givers alcoholism ▪ Poor health seeking behavior and wrong referrals by CHVs. 	<ul style="list-style-type: none"> ▪ Holding monthly nutrition data review meeting and commodities forecasting, ▪ Facilitation of ScNOs to do LMIS reporting, carrying out health facilities in-charges sensitization on LMIS ▪ Produce and distribute MoH reporting tools ▪ Advocate for recruitment of more nutritionists ▪ Re-mapping and carrying out integrated outreach clinics ▪ Implementing IMAM at all health facilities in the sub-county ▪ Equipping and operationalization of all new health facilities in the sub-county. ▪ Re-mapping and carrying out nomadic integrated outreach clinics ▪ Sensitization of the communities through wind up radios, community dialogues on contact at the health facilities ▪ Doing active case finding and referrals of cases through CUs ▪ Linkage of households with malnourished children to social food safety nets (County commissioner’s office, Catholic Diocese, Cash for Assets Creation among others). ▪ County government to entrench Community health strategy in its policies and enumerate CHVs ▪ Sensitizing the communities through wind up radios, community dialogues, and on contact at the health facilities, barazas. ▪ Train all CUs on nutrition technical modules ▪ Scale up BFCI to all CUs in the sub-county ▪ Continuous mentorship and on job training ▪ Scale up of IMAM surge approach to all health facilities in the sub-county ▪ Adherence to IMAM protocol to build the confidence of community on IMAM services.



1.0 INTRODUCTION

1.1 Background Information: Geographic description of the survey area

East Pokot is one of the sub-counties in Baringo County. It borders Turkana East to the North, Marakwet county and Baringo North sub-county to the West, Laikipia and Samburu county to the East, and Marigat sub-county to the South. It covers an average area of 4524.8Km with an estimated population of 163,549 (2017 projection based on 2009 population census with annual population growth rate of 2.6%). The proportion of U5 years in East Pokot is 16% with an estimated population of 29,439.

East Pokot is sub-divided into seven (7) administrative divisions which are in two livelihood zones, Pastoral (Kolowa, Tangelbei, Akoret, Mondi, Ngoron, Nginyang divisions) and Agro Pastoral (Churo division).

The county department of health has been implementing integrated health and nutrition services in East Pokot with support of partner. Currently there are 35 functional health facilities with 24 offering Integrated Management of Acute Malnutrition (IMAM) services in East Pokot Sub County.



Legend	Livelihood zone
	Pastoral
	Agro-Pastoral

Figure 1: East Pokot Sub-county Map

IMAM program in Baringo is being implemented through the department of Nutrition in the County Department of Health in collaboration with partners (World Vision Kenya (WVK), UNICEF &





World Food Programme WFP). The programs intervention includes community screening, identification and management of severe and moderate acute malnutrition of children under five years and pregnant and lactating mothers. The overall management of malnutrition follows IMAM model where treatment is integrated into the County health system.

One of the major challenges facing the IMAM programs is high defaulter rates a result of long distances to the health facilities, migration, insecurity and care givers alcoholism leading to poor program outcomes.

1.2 Objectives of the Survey

1. To identify factors affecting (Barriers and Boosters) the uptake of the OTP and SFP services in Baringo County
2. To establish the overall coverage estimate for the OTP and SFP in Baringo County
3. To provide action plan to improve acceptance and coverage of OTP and SFP in Baringo County
4. To enhance the capacity of the county department of health services and other Program Staff from partners' competence in using SQUEAC methodology to assess program coverage in Baringo County.

1.3 Methodology

The coverage assessment applied a SQUEAC Methodology that involves three stages of the methodology which were all applied.

Stage One: Involved identifying areas of low and high coverage as well as reasons for coverage failure using routine program data, any other existing data and qualitative data. Quantitative routine program data was obtained from the IMAM registers from all health facilities in the Sub-County offering IMAM. Qualitative information was obtained from various sources that is CHV, CHEW, Health Facility staff, OTP mother, Community women, Community Men, Leaders (chief, ward admin), World vision/Kenya Red Cross, NDMA, TBA, Religious leaders, Traditional healers, Mother support group, Program staff, SCHMT, CHMT and Care givers of defaulters in OTP/SFP. The information was collected using various methods namely Semi structure interview, FGD, Key informants interviews, Data analysis and Observations.

Stage Two: Involved confirming the location of areas of high and low coverage and the reasons for coverage failure identified in stage one and also formulation and confirmation of hypothesis. This was done using the small studies, small surveys and small-area surveys.

Stage Three: This involved estimation of overall program coverage using Bayesian techniques through wide area survey. For wide area survey there was calculation of number of children U5 years to be included in the survey and also number of villages for case finding that will ensure the



required number of U5 is obtained. To calculate the Number of U5 required for both SFP/OTP it involves calculation of the prior, Alfa (α), beta (β) and estimated precision.

The prior mode was computed by taking the average of the total sum of weighted boosters and barriers, un-weighted barriers and boosters, concept map and the belief (histogram).

$$\text{Alfa } \alpha_{\text{prior}} = \mu \times \left(\frac{\mu \times (1 - \mu)}{\sigma^2} - 1 \right)$$

$$\text{Beta } \beta_{\text{prior}} = (1 - \mu) \times \left(\frac{\mu \times (1 - \mu)}{\sigma^2} - 1 \right)$$

Where $\mu = (\text{Minimum} + 4 \times \text{Mode} + \text{Maximum}) / 6$, $\sigma = (\text{Maximum} - \text{Minimum}) / 6$

Estimated precision between 10% to 15%

The calculated prior mode, Alfa (α), beta (β) and estimated precision was used to estimate the number of children to be included in the survey for both OTP and SFP using Bayes plot.

The number of villages to enable obtain the required number of U5 was calculated using the formula;

$$n \text{ villages} = \frac{n}{\text{average village population} \times \frac{\% \text{population of 6 to 59 months}}{100} \times \frac{\text{prevalence}}{100}}$$

Where n is the number of children 6-59 months to be obtained in the survey.

A sample of villages for the wide area survey was calculated using systematic sampling. A list of villages and their population within the sub county was obtained. A sampling interval was calculated by using total number of villages and number of villages for the wide area survey. A random number was selected and a systematic sampling was done to identify the villages.

Overall program coverage was estimated using Bayesian technique. This was done using calculated prior mode, Alfa (α), beta (β), and precision, calculated Numerator and Calculated denominator.

Numerator = Number of Cases covered in the program + number of cases recovering in the program

$$N = C_{in} + R_{in}$$

Denominator = Number of Cases covered in the program + Number of cases recovering in the program+ Number of cases not covered in the program + Number of recovering cases not in program

$$D = C_{in} + R_{in} + C_{out} + R_{out}$$

Where $R_{out} \approx \left[\frac{1}{k} \times \left(R_{in} \times \frac{C_{in} + C_{out} + 1}{C_{in} + 1} - R_{in} \right) \right]$



Correction factor (k) which is the ratio of the mean length of an untreated episode (average of 7.5 months) to the mean length of a IMAM treatment episode (average of 2.5 months)

Single coverage estimate = numerator $(N = C_{in} + R_{in}) /$ Denominator $(D = C_{in} + R_{in} + C_{out} + R_{out})$

1.4 Assessment Period and Team

The coverage assessment was conducted in between 06th to 31st December 2017 for stage 1, 2 and 3. In total, there were 19 participants who were involved in the collection of the both qualitative and quantitative data. The participants were drawn from the Ministry of Health, County Department of Health, WVK nutrition project staffs, ACF and UNICEF

1.5 Case Definitions

Out Patient Therapeutic Programme (OTP)

Children age between 6-59 months with at least a Mid Upper Arm Circumference (MUAC) of <11.5 cm and/or Bilateral pitting oedema (grade+ and grade++) with no medical complication WFH <-3SD.

Supplementary Feeding Programme (SFP)

Children age between 6-59 months with a Mid Upper Arm Circumference (MUAC) of 11.5 cm to <12.5cm and/or Weight for Height -3SD to <-2SD

2.0 RESULTS: EAST POKOT OTP AND SFP COVERAGE ASSESSMENT FINDINGS

2.1 Program Data Analysis

The routine program data was analysed to inform on various indicators which include MUAC on admission, OTP and SFP admission over time and standard program performance data with focus on the defaulters and the in-program deaths. This data was used to show trends on the indicators giving key issues and areas to be investigated further to provide explanation. A calendar of seasonal events for East Pokot was developed and compared with the trend of



program data. In particular the relationship between the OTP and SFP admissions, exits and the defaulters with the seasonal calendar was established.

2.1.1 Admission in OTP

Type of admission to an OTP

New Admission: This is where a patient has not been under treatment elsewhere – such patients are either referred from the community screening programme or spontaneously come to the OTP seeking treatment. They do not have a SAM number and one should be assigned.

Relapse: This is where a child has been in the programme – IPF, OTP or both – and has been discharged from the programme as **cured**. The same child gets severely malnourished again and is admitted. The child is given his/her original SAM number, but there is a hyphen after the main number with a number denoting the number of episodes of severe malnutrition that the child has had.

Transfer-in:

Transfer-in” to an OTP from another OTP. This is where a patient is transferred from one OTP to another OTP; it is NOT a new admission (to the programme for treatment of SAM) and the child should already have a SAM number.

Transfer-in” to an OTP from an In-Patient facility. This is where a patient is transferred from the Inpatient facility; it is NOT counted as a new admission as the patient has been under care in the Inpatient facility; the child should already have a SAM number, which will be used by the OTP.

Return from In-Patient care to OTP: *This is where a patient has been sent from the OTP for Inpatient care. The child has already been admitted as a new patient to an OTP, has then been sent for In-Patient care and now returned to his/her original referring OTP.*

Readmission: This is where a defaulter returns to either the OTP or in-patient facility to resume treatment after an absence of 2 months or less. The child is not a new admission and is reassigned his/her original SAM-number.

Admission criteria for OTP

- W/H - W/L <-3 Z score (WHO growth standards2006)
- MUAC<115 mm if length/height >65cm
- Presence of bilateral pitting oedema** (+ & ++ admission to OTP; +++ admission in in-patients care)



OTP Admission Trends in East Pokot Sub-county

Admission of OTP in East Pokot health facilities was compared with seasonal calendar data for the same area in the period November 2016 to Oct 2017. This admission data was sourced from DHIS. The result showed that in January 2017 there was an increase in facility admission as a result of mass MUAC screening, childhood disease (Diarrhoea, ARI and malaria), high food prices, and limited availability of milk, Drought and female labour. During Feb and March 2017 there was a decrease in facility admission due to insecurity that limited normal health facility operation and access. In April, May and June 2017 there was high admission as a result of increased outreaches, childhood diseases (Malaria, ARI and Diarrhoea) and drought. During July and August 2017 there was a decrease in facility admission due health workers strike, low food prices, decreased cases of childhood diseases. In Sept 2017 there was increase in admission due to increased outreaches.

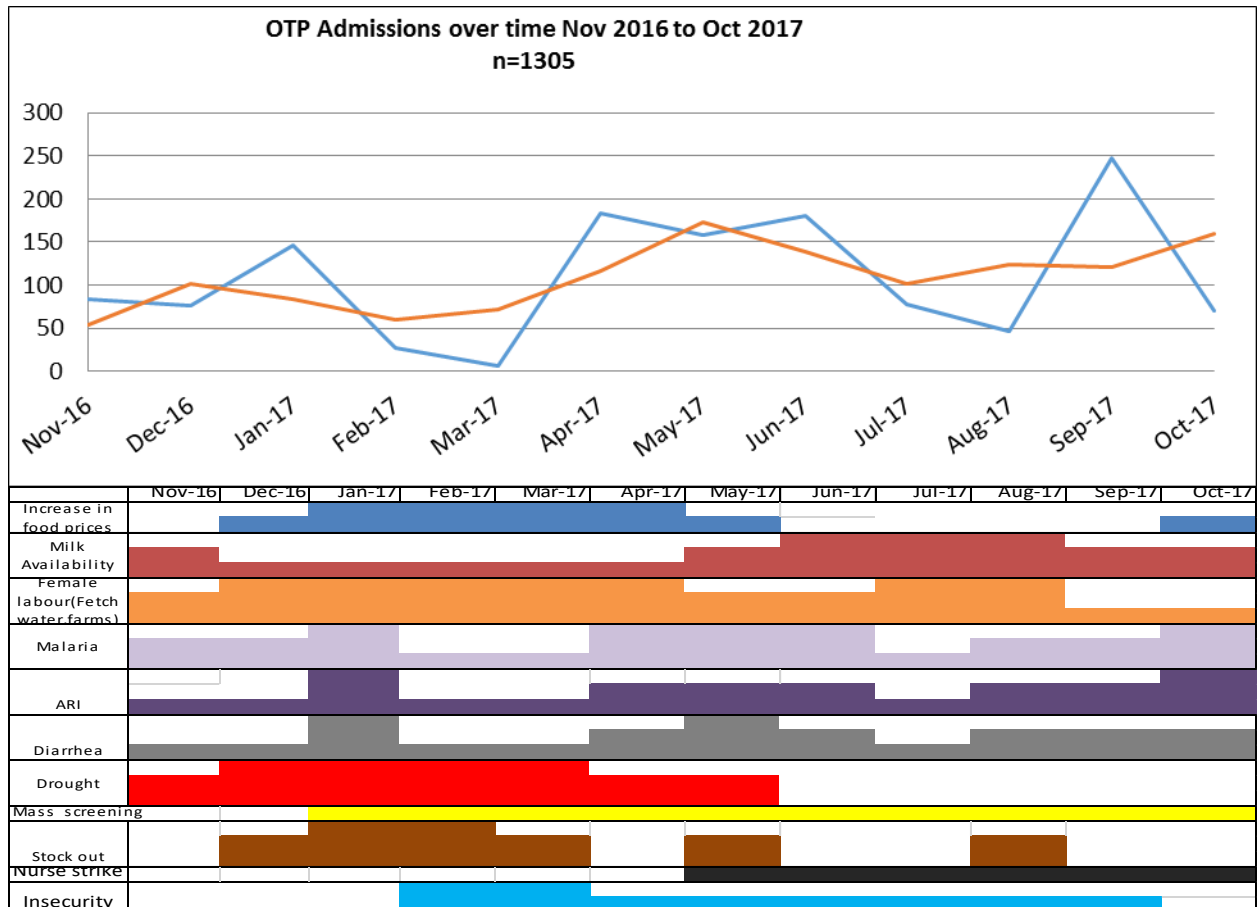


Figure 2: OTP Admissions over time Nov 16- Oct 17 and seasonal calendar

OTP MUAC at admission





MUAC at admission in OTP programs in East Pokot Sub County was assessed to examine timeliness of the beneficiaries in seeking health treatment. The result showed a median value of 111mm in OTP which reflects early treatment seeking behaviour of the beneficiaries. There were late admissions MUAC below 110mm reported in OTP programs and this was attributed to distances, lack of income, ignorance/poor parenting and poor seeking behaviour among the communities.

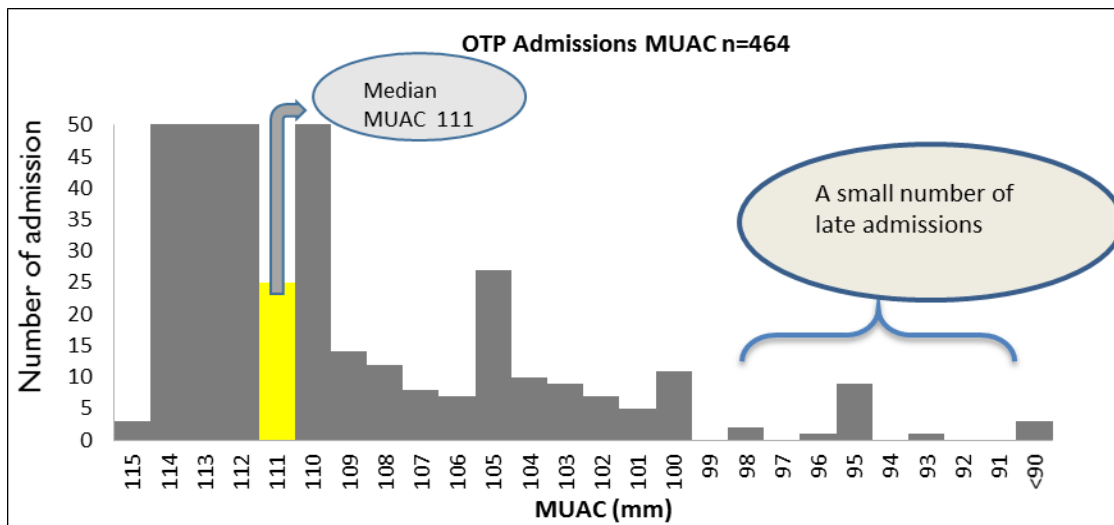


Figure 3: OTP MUAC at admission

2.1.2 SFP Admission over time in East Pokot Sub-county

Admission of SFP in East Pokot health facilities was compared with seasonal calendar data for the same area in the period November 2016 to Oct 2017. This admission data was sourced from District Health Information Software 2(DHIS2). In January 2017 there was increase in facility admission that can be attributed to mass MUAC screening, childhood disease (Diarrhoea, ARI and malaria), high food prices limited availability of milk, drought and female labour. In February and March 2017 there was a decreased admission in facility was noted in February and March 2017 as a result of insecurity that limited normal health facility operation and access by the community. During April, May and June 2017 the program had high admission attributable to increased outreaches, childhood diseases (Malaria, ARI and Diarrhoea) and drought, while in July and August 2017 a decrease in facility admission was noted due health workers strike, low food prices and decreased cases of childhood diseases. In Sept 2017 there was an increase in admission due to increased outreaches by the program partners.



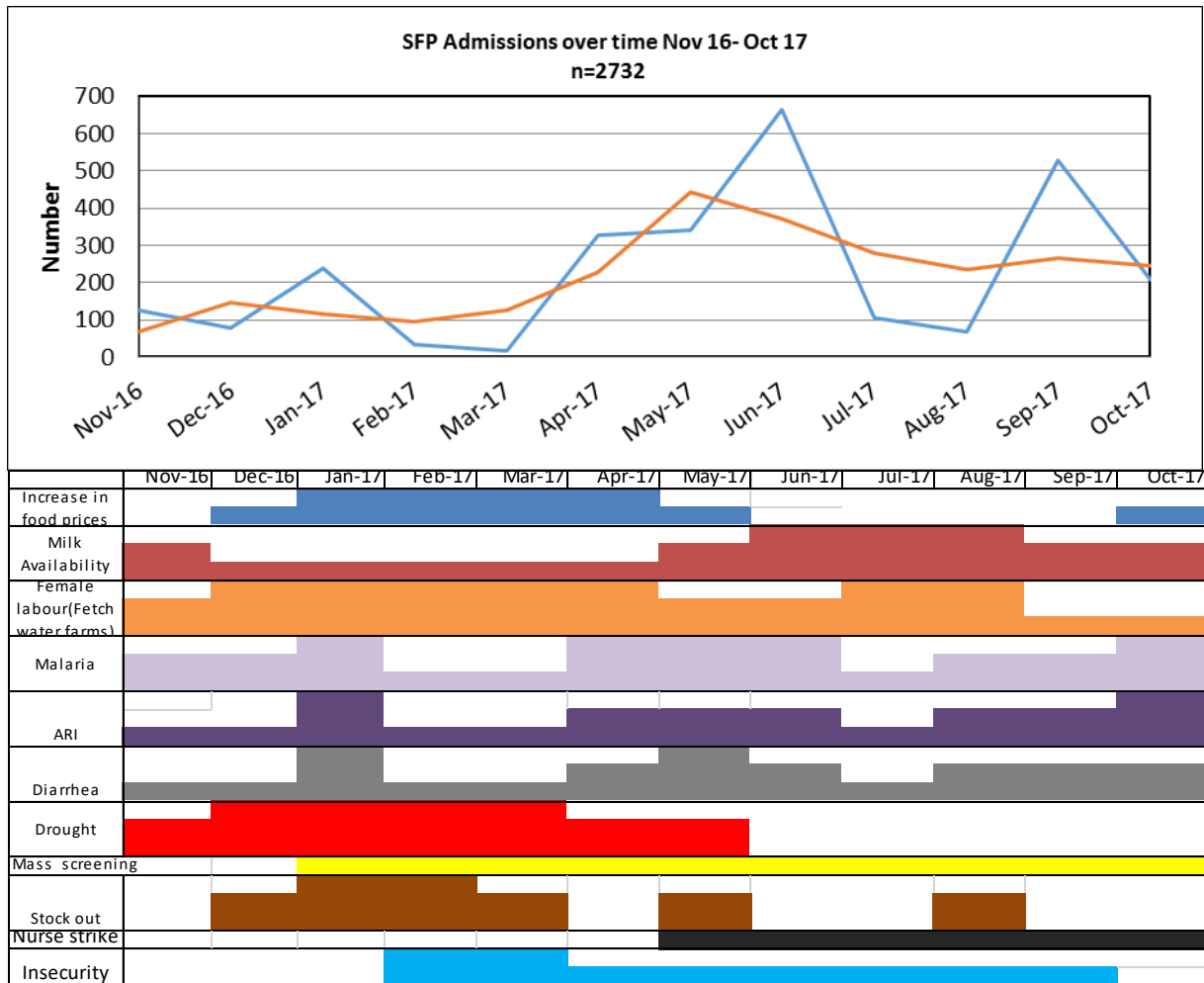


Figure 4: SFP Admissions over time November 2016 to October 2017

SFP MUAC on admission

MUAC at admission in SFP programs in East Pokot Sub County was assessed to examine timeliness of the beneficiaries to seek for health treatment. The finding showed a median value MUAC of 120mm in SFP which reflects early treatment seeking behaviour of the beneficiaries. A proportion of SFP beneficiaries were admitted with a MUAC of 115mm which were transfers from OTP program. Late admissions were also reported in both programs and this was attributed to distances, ignorance and poor seeking behaviour among the communities. There were few cases of admission outside the standard threshold which is an indication of poor adherence to protocol.



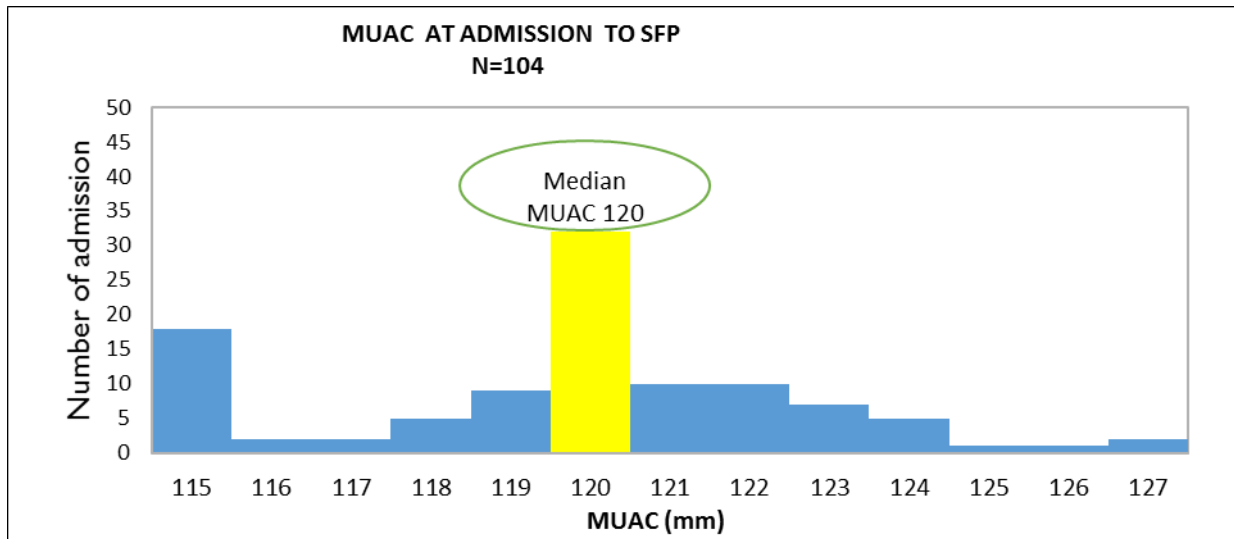


Figure 5: SFP MUAC on Admission

2.1.3 Discharge Data

OTP defaulter Trend over time

A beneficiary in OTP is termed as a defaulter if the patient has not returned for 2 consecutive visits and a home visit confirms that the patient is not dead.

Defaulter data on OTP from health facilities in East Pokot Sub County for the period November 2016 to October 2017 was analysed and triangulated with seasonal calendar of the same period. The results showed that in February to April 2017 there was an increase in defaulters which could be attributed to increased female labour, drought that resulted to migration of households, stock out of commodities and insecurity.

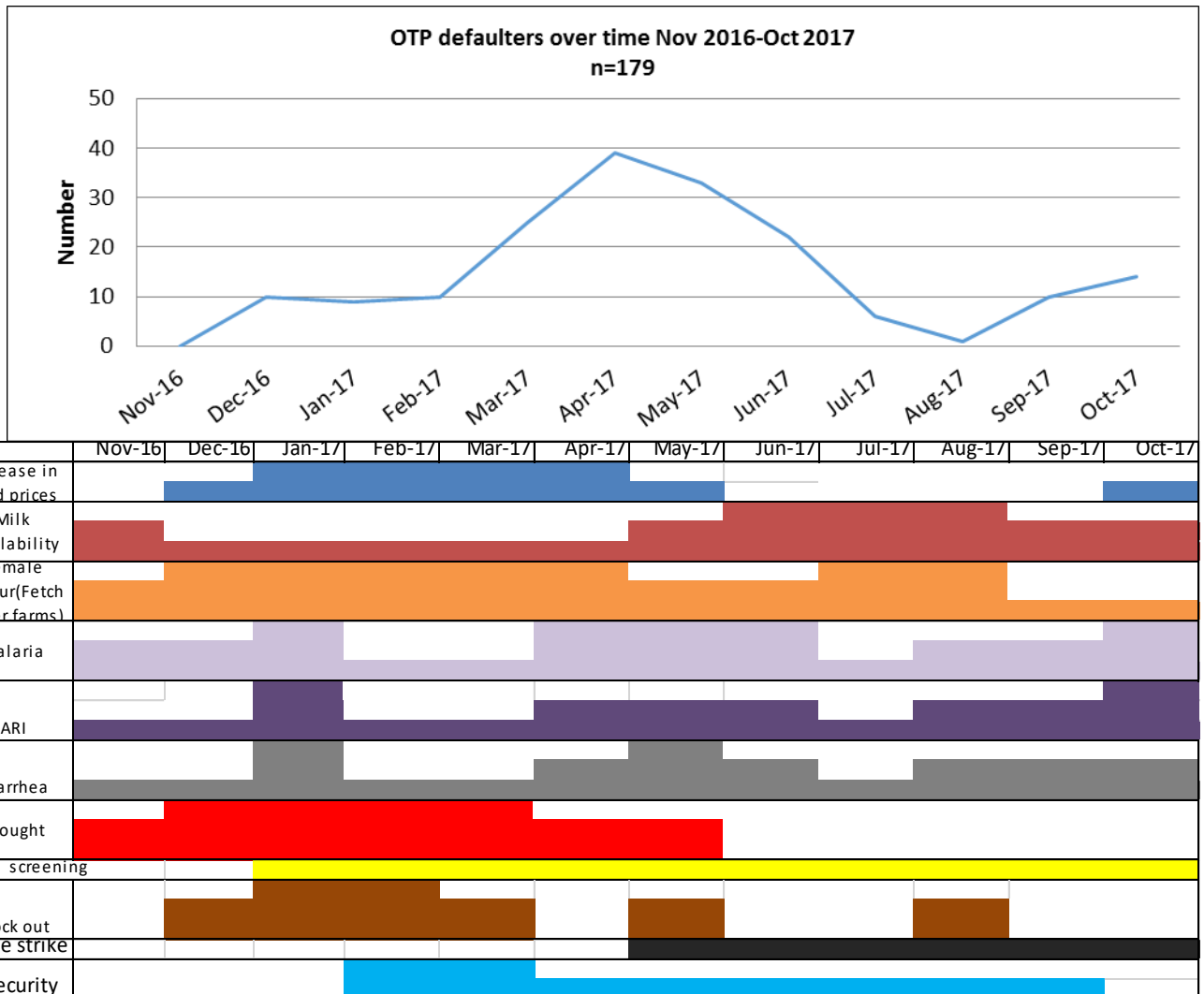


Figure 6: OTP defaulters over time Nov 2016-Oct 2017

OTP average LOS before defaulting in East Pokot Sub County

An investigation on average length of stay of the beneficiaries was also done to assess the quality of care a child is receiving during treatment at the facility, at home and the effectiveness of the IMAM program in the OTP program. The average acceptable length of stay in OTP is between 45-60 days according to the IMAM guidelines.



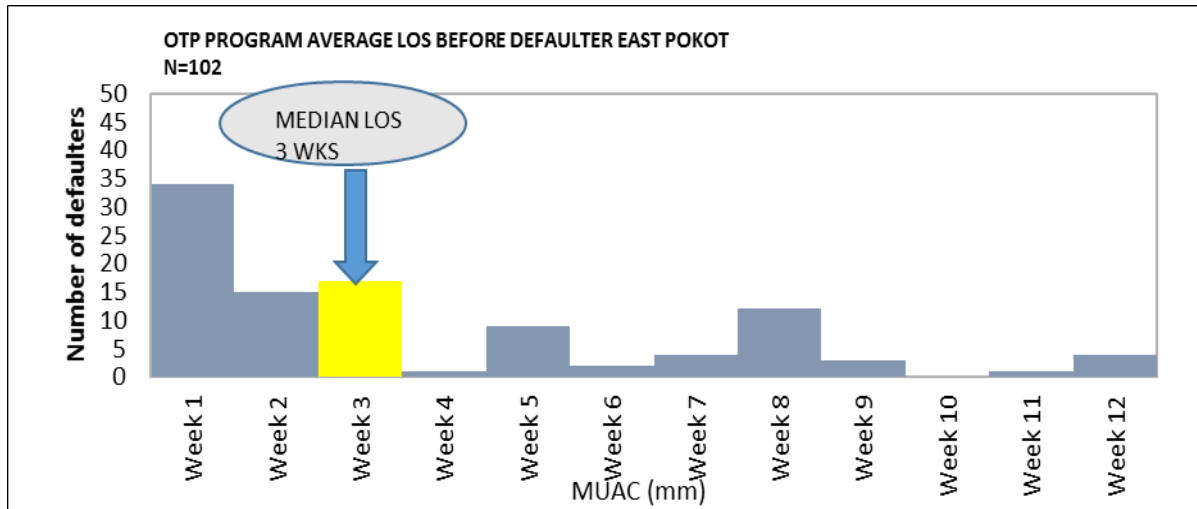


Figure 7: OTP average LOS before defaulting

In OTP Median length of stay was three weeks. This indicated that where treatment protocols were being observed, clients were curing early and were being discharged to SFP, However some beneficiaries were discharged early due to wrong admission criteria. Also witnessed were late exits (above 8th visit were those who overstayed in the program) due to household sharing of the ration and absenteeism.

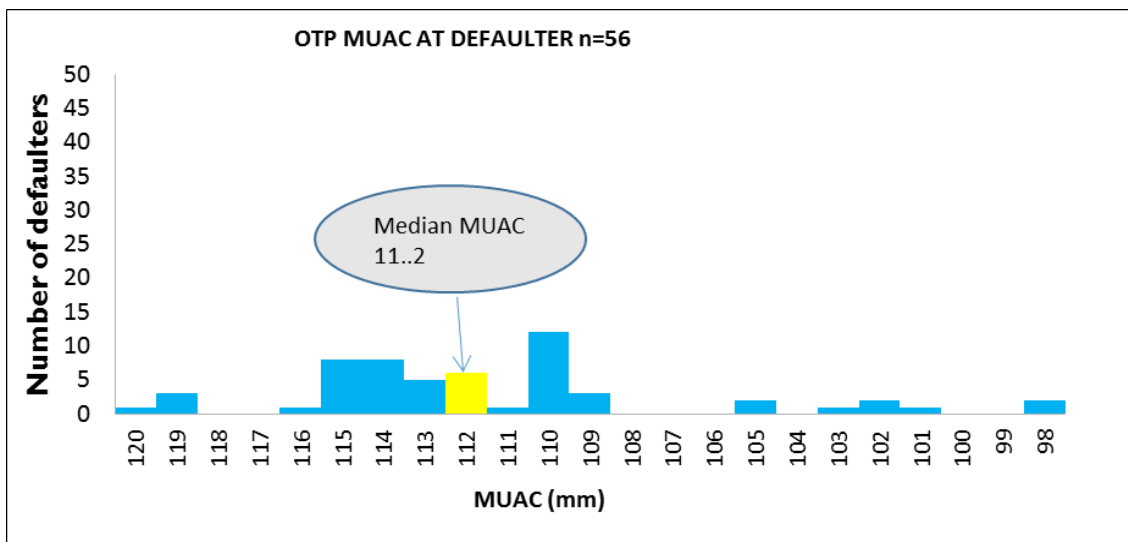


Figure 8: OTP program average LOS before defaulting

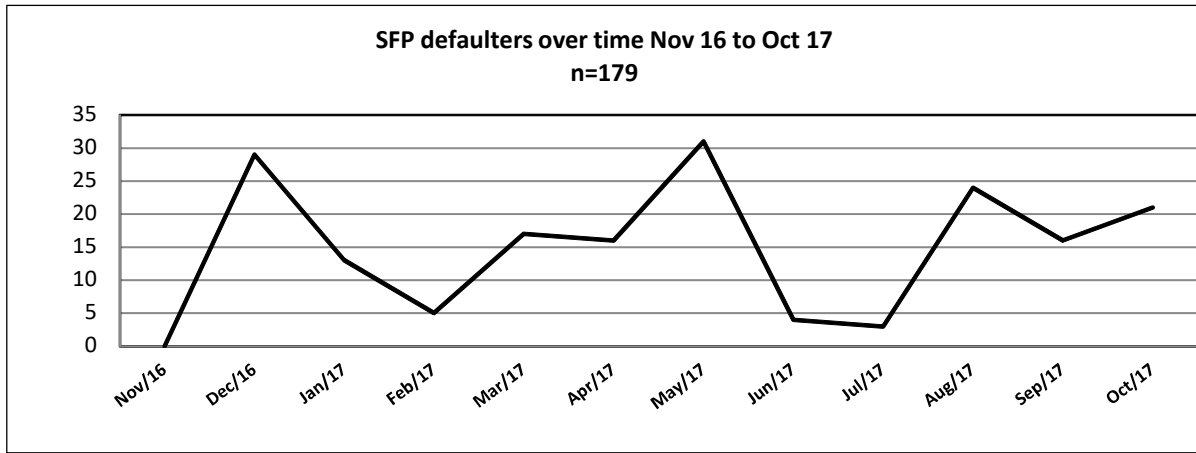


The median length of stay before defaulting for OTP clients was week three. The data showed that more clients defaulted in week one and week two.

SFP defaulter Trend over time

Defaulter data on SFP from health facilities in East Pokot Sub County for the period November 2016 to October 2017 was analysed and triangulated with seasonal calendar of the same period. Increased defaulter cases in the SFP was reported in December 2016 due to female labour, stock out of commodities and drought that lead to migration of households.

In February-May and August 2017 there was increase in number of defaulters due to high female labour, drought stock out, insecurity and health workers strike.



	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
Increase in food prices												
Milk Availability												
Female labour(Fetch water farms)												
Malaria												
ARI												
Diarrhea												
Drought												
Mass screening												
Stock out												
Nurse strike												
Insecurity												

Figure 9: SFP defaulters over time Nov 16 to Oct 17 in East Pokot Sub County

An investigation of average length of stay of the beneficiaries was also done to assess the quality of care a child is receiving during treatment at the facility, at home and the effectiveness of the IMAM program in the SFP program. The average acceptable length of stay for SFP is less than three months according to the IMAM guidelines. In SFP, Median length of stay was week five. This indicates that where treatment protocols were being observed, clients were curing early.

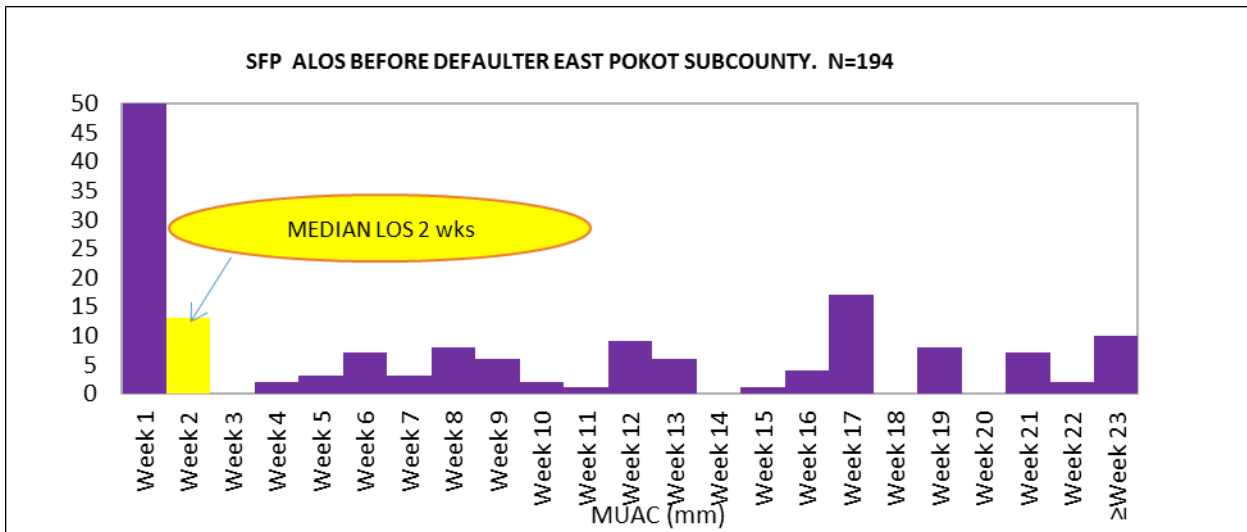


Figure 10: Average LOS before default

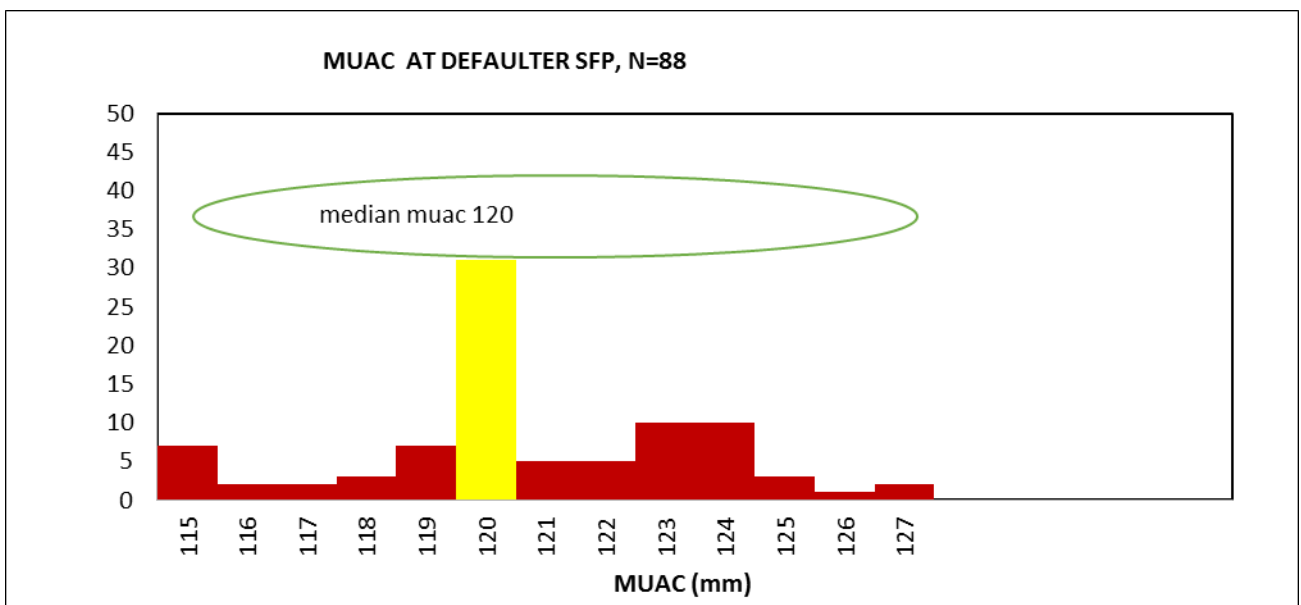


Figure 11: MUAC at Default in SFP program

OTP Exit/Discharge Trend over time

Cure rate for OTP was 58.47% which was below sphere standards (> 75%). This was attributed to high defaulting and stock out of commodities. Defaulter rate for OTP was 36.98% which was above the sphere standard (< 15%). This was attributed to insecurity, nurse's strike and drought that lead to household migrating far from the healthy facility offering IMAM services. Death rate for OTP was 0.83% which was within sphere standards (<10 %).



The data showed that cure rate decreased from the month of November 2016 to March 2017. During the same period of November 2016 to March 2017 defaulter rate also increased. This can be attributed to stock out of nutrition commodities in health facilities where children did not get the required number of commodities for full treatment. Also insecurity, drought and high female labour that lead to defaulting affecting the correct management of the children in program to get cured.

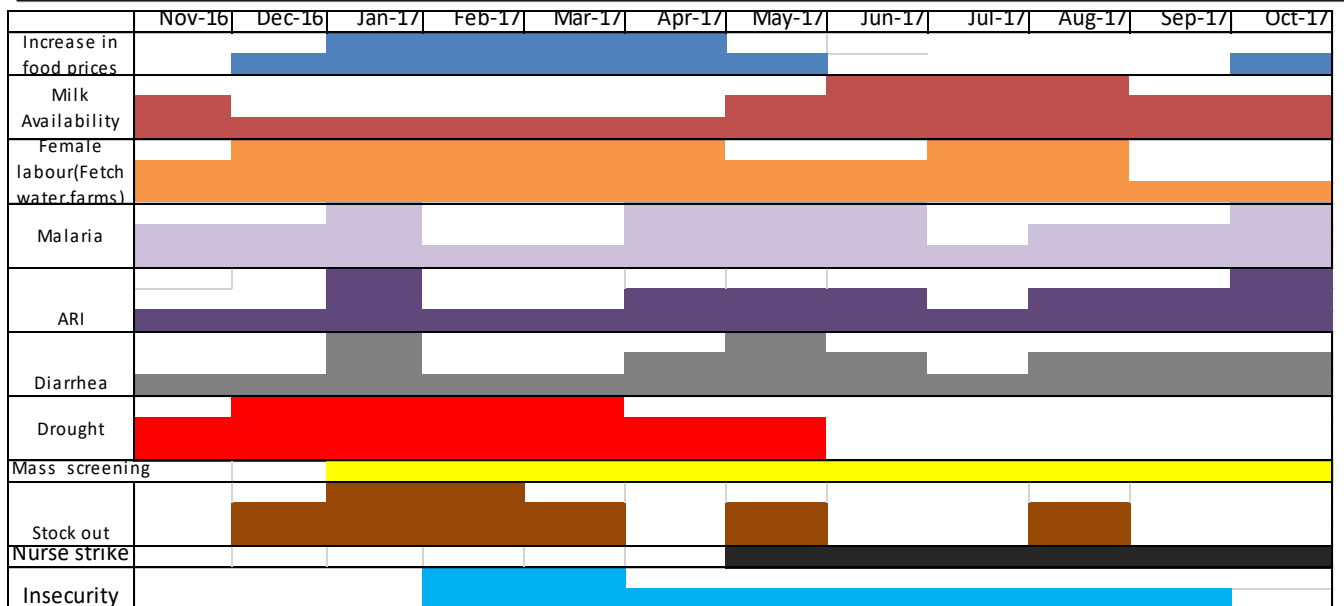
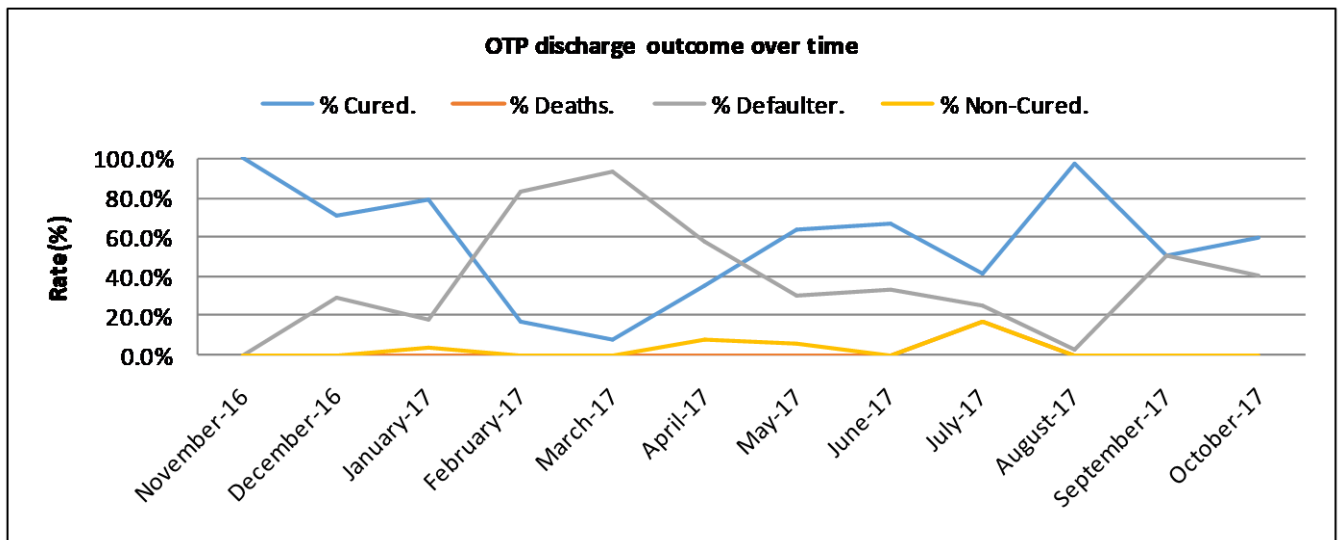


Figure 12: OTP Exit/Discharge Trend over time



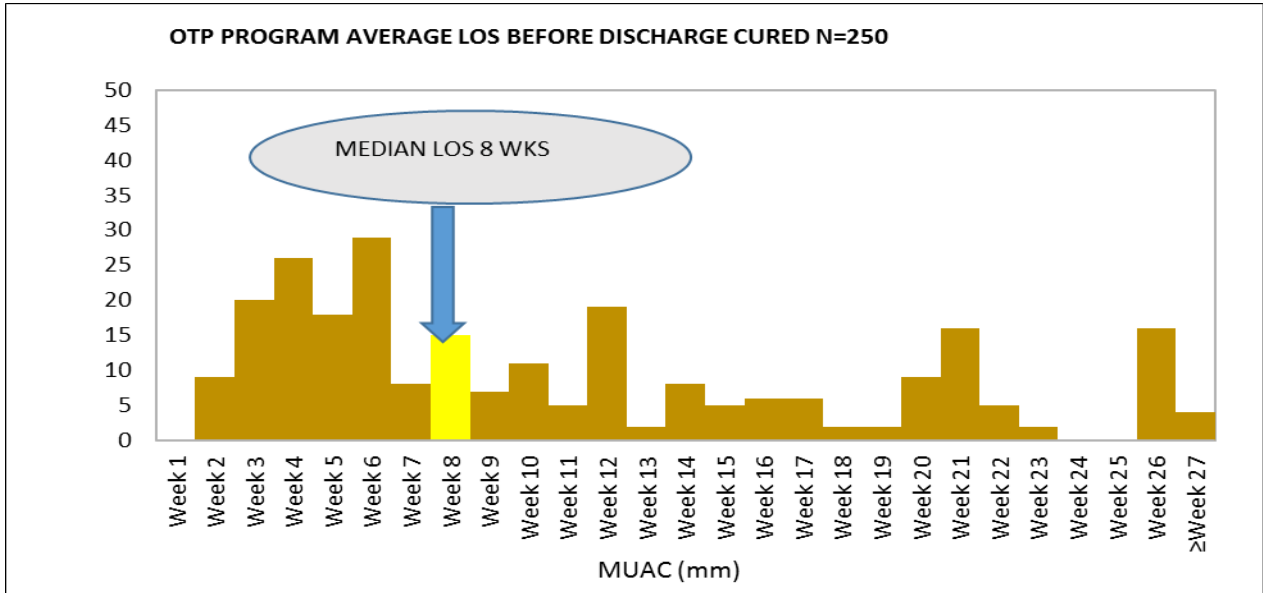


Figure 13: Average LOS before discharge

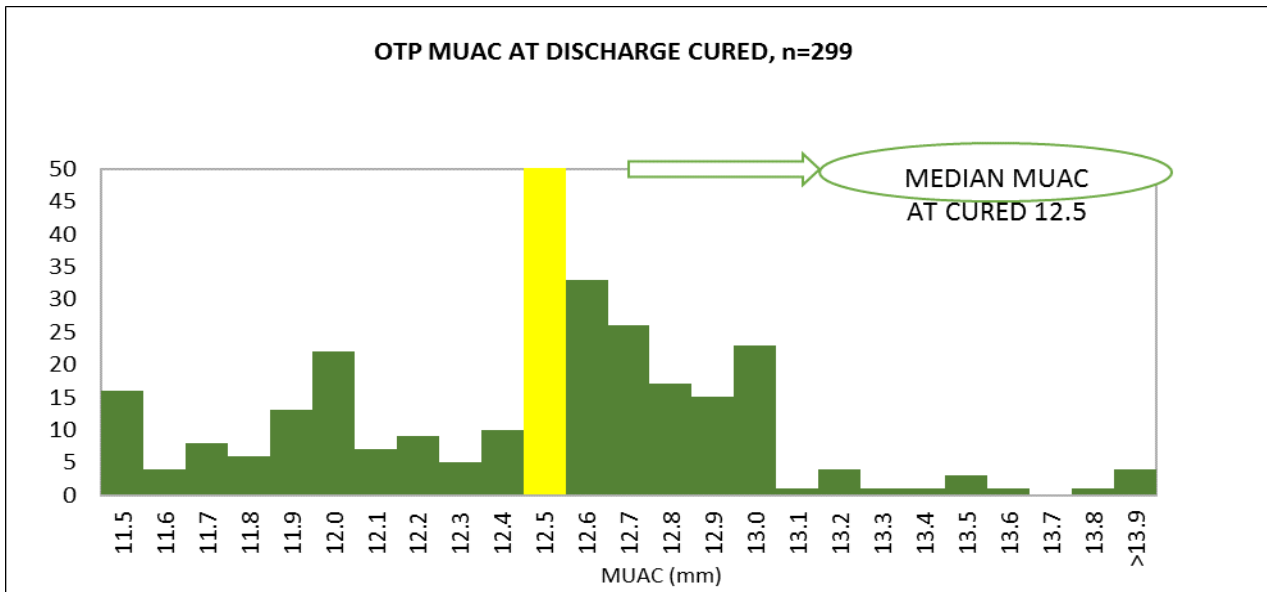


Figure 14: OTP MUAC at discharge Cured

Most of children were cured at a higher MUAC than the recommended 12.5cm though a median of 12.5cm is a good indication of adherence to protocol.

SFP Exit Trend over time





Cure rate for SFP was 65.9% which was below sphere standards (> 75%). This was attributed to high defaulting and stock out of commodities. Defaulter rate for OTP was 30.1% which was above the sphere standard (< 15%). This was due to insecurity, nurse's strike and drought that lead to household migrating far from the healthy facility offering IMAM services.

Death rate for OTP was 0.17% which was within sphere standards (<10 %). Cure rate decreased in the month of Feb 17 and August 17 due to stock out, insecurity and nurses' strike who are the pillar in the service delivery. This was also attributed to increased defaulters due to insecurity, drought that lead to household migration and female labour.

From the graph, defaulting majorly affects the cure rate in SFP.

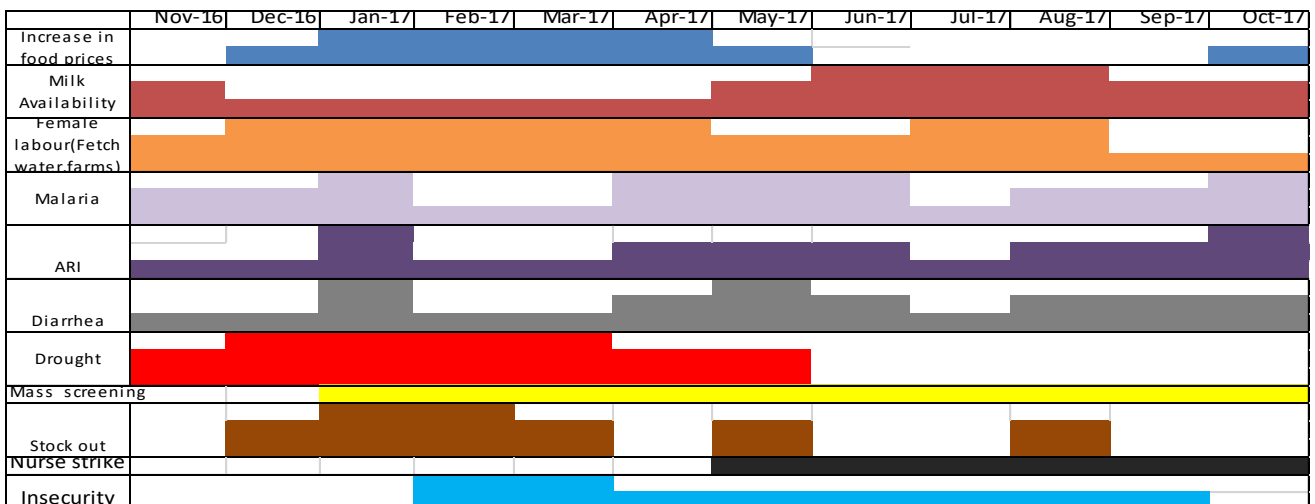
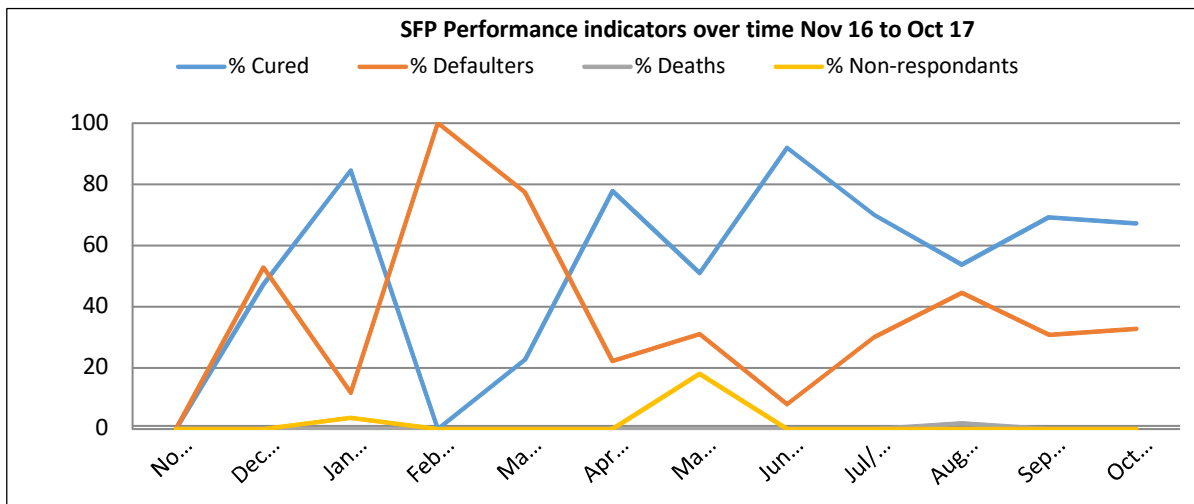


Figure 15: SFP Exit Trend over time





2.2 Qualitative Data

Qualitative data was collected from different sources using various methods. These methods included; Informal Group discussions, Semi structured interviews, In-depth interviews and Observation. The data was collected from Community Leader, Community Health worker, Care givers of children not in Programme, Care givers, Health Workers, Program Staff, Chief/Administration, Observation, TBAs/Traditional Healers, Religious Leaders, Defaulters, Program data, Pastoralists and Teachers.

From the qualitative assessment several factors were identified as promoters or barriers to access of IMAM services as summarized below:

Barriers were defined as factors that contributed to poor/low coverage for SFP.

Boosters were defined as factors that contributed to good/high coverage for SFP.

2.2.1 OTP Barriers East Pokot Sub County

Table 2: Barriers to OTP Program Coverage

NO	BARRIERS	SOURCES	METHODS
1	Lack of income at HH level	1,4	C,B
2	Distance/cost of transport	13 ¹ 1 ¹ ,4 ¹ ,1,2,9,11,6,7,5,3	C,B,A
3	Poor health seeking behaviour	1,3,6,8,15 ¹	C,B
4	Stock out	1 ¹ ,2,6,4,3,16	C,B,A
5	Migration	1 ¹ ,4,2,7,3,15	C,B,A
6	Community say commodities have side effect or diarrhoea	1	C
7	OTP day same with market day	1	C
8	Lack of knowledge by community on IMAM services (eligibility) operation.	1 ¹ ,3 ¹ ,9,11	C,B,A
9	Lack of motivation to the CHV	1 ¹ ,2,3	C,A
10	Sharing of commodities	1 ¹ ,4,3 ¹ ,11,8,16	C,B
11	Insecurity (defaulting, long length of stay in the program.)	4,13	B,C
12	Irresponsible parenting(alcoholism)	4,2 ¹ ,9,11,7,3 ¹ ,1	B,C,A
13	Stigma(lazy, irresponsible mother, curse) shame, disability	4 ¹ ,9,7,3	B,C
14	Long waiting time at the OTP centre	4	B
15	Harassment by staff(defaulter)	4	B
16	Perception of commodities as food by the community	4,6	B,C
17	Theft of IMAM commodities	3	C
18	Some community members not aware of the programme	4,6,7,13	B,C
19	Health facilities not offering IMAM services	3	C
20	CHV lacks referral forms	3	C
21	No follow up by CHV after referring	3	C



22	Staff not following referral procedures	3	C
23	Poor coordination between staff and CHV	3	C
24	No defaulter tracing	3,16	C
25	Staff workload	31	C
26	Female labour	3,2,15	C
27	Care givers not following prescription	2	C
28	Community lack knowledge of malnutrition	9,3	C
29	Community structures not effective	5	B
30	Inadequate storage facilities	1	A
31	Wrong referral by CHVs	1	A
32	Community perceive OTP as blanket (BSFP)	31	C
33	Cultural events eg sapanana and lapan hinder service access	3	C
34	Poor infrastructure(road network)	3	C
35	Few nutritionists	16	C
36	Selling of commodities	16,13	C
37	Staff not following IMAM protocol	16,15	C
38	Language barrier	13	C

2.2.2 OTP boosters East Pokot Sub County

Table 3: Boosters to OTP Program Coverage

S/NO	BOOSTERS	SOURCES	METHODS
1	CHVs knows their roles(active)/trained	1 ¹ ,4 ¹ ,2,9,11,8,3,15	C,B,A
2	Good Identification and enrolment	1 ¹ ,	C,A
3	Regular meeting between H/f staff and CHV	1	C
4	Good feedback between staff and CHV	1,3 ¹	C
5	Good perception of the program by the mothers	1,4 ¹ ,9,6,7,8,5,15 ¹ ,16	C,B
6	CHV enjoys their roles, children get cured	1	C
7	Good information sharing about IMAM services by the CHV and the community/health workers/ NGOs	4 ¹ ,16	B,C
8	Enough stock	4 ¹ ,9	B,C
9	Community referrals	4,3	B,C
10	Staff trained on IMAM	3 ¹ ,16	C
11	Service is effective(immediate outcome)	3,4	C
12	Integrated outreaches	2,9,16	C
13	TBA aware of IMAM services	8	C
14	TBA have knowledge of malnutrition	8	C
15	Leaders assist in community mobilization/sensitization	9,7,3	C
16	Enough personnel/staff(health centre ,dispensary)	11,3	B,C
17	Community knows signs of malnutrition	6,15	B,C
18	H/F services near the community	6	B



19	Community is aware of IMAM services	6,5,3,15 ¹	B,C
20	Community/carers understand that RUTF is treatment/health education/treatment protocol	6,5,3	B,C
21	Leaders/key figures are aware/have knowledge of IMAM program.	7,9	C
22	Good health seeking behaviour	5	B
23	Staff able to communicate using local language	3	C
24	Good documentation and record keeping by staff	3	C
25	Defaulter tracing in place	3	C
26	Regular support supervision	3	C
27	Reporting to the linked facilities	16	C
28	Availability of referral tools	1	A

4.2.3 Barriers to SFP Program Coverage

Table 4: SFP Barriers

S/NO	BARRIERS	SOURCES	METHODS
1	Stock out	1,4,2,6,15 ¹ ,3,16	C,A,B
2	Lack of income at house hold	1	C
3	Distance/ cost of transport	1,3 ¹ , 9,11,6,7,5,15,13 ¹	C,B,A
4	Poor health seeking behaviour	1,4,3 ¹ ,6,8	C,A,B
5	Migration	1,4,2,7,15	C,A
6	Community says commodity has side effects	1	C
7	SFP days same as market days	1	C
8	Lack of knowledge by community on IMAM services(eligibility)	1,9,11	C,B,A
9	Lack of motivation to CHV	1,2,15	C,A
10	Sharing of commodities	1,2,11,8,15	C,B
11	Long waiting time at the health facility	4	A
12	Theft of the commodities	3 ¹	C
13	Health facility not offering IMAM services	3	C
14	CHVs lack referral tools/forms	3	C
15	No follow up by CHV after referral	3	C
16	Staff not following referral procedures	3	C
17	Poor coordination between staff and CHV	3	C
18	Irresponsible parenting	3,2,9,11	C,D
19	No system for defaulter tracing	3	C
20	Staff workload	3	C
21	Female labour	2	C
22	Caregivers not following the prescription	2	C
23	community lack knowledge on malnutrition	9	C
24	Some community members are not aware of the programme	6,7	B,C
25	Community structures not effective	5 ¹	B



26	Wrong referrals by CHVS	3 15	c
28	Poor infrastructure	3	c
29	Absent staff	3	c
30	Staff not following IMAM protocol	15	A
31	Community perceive SFP as blanket	15, 16	C A
32	Language barrier	13	C

4.2.4 Boosters to OTP Program Coverage

Table 5: OTP boosters

S/NO	BOOSTERS	SOURCES	METHODS
1	CHV know their roles(active)	1,2,9,11	C,B
2	Good identification of cases and enrolment	1	C
3	Regular meeting between H/F and CHV- 3MONTHS	1	C
4	Good feedback between H/F staff and CHV	1	C
5	Good perception of the programme by mothers/ carers	1,4	C,A
6	CHVs enjoys their roles, children got cured	1	C
7	Carers of the beneficiaries informed about IMAM services	4	A
8	Good relation between the carers and the facility staff	4	A
9	Carers understand RUSF is treatment	4	A
10	Staff trained on IMAM	3	C
11	IMAM services are effective	3	C
12	Integrated outreaches	2,9	C
13	TBA are aware of IMAM services	8	C
14	TBA have knowledge on malnutrition	8	C
15	Leaders assist in community mobilization	9	C
16	Enough personnel(staff in H/C, dispensary	11	B
17	Community knows signs of malnutrition	6	B
18	Health facility services near community	6	B
19	Community is aware of IMAM services	6,5,16	B,C
20	Leaders/Key figures are aware of IMAM programme	7,9	C
21	Good health seeking behaviour	5	B
22	Staff able to communicate using local language	3	C
23	Good documentation	3	C
24	Defaulter tracing in place	3,16	C
25	Regular support supervision	3,16	C
26	Advocacy/community sensitization	16	C
27	Good coordination mechanism(MOH, partners)	16	C



2.3 Hypothesis Testing and Small Area Survey for East Pokot Sub-county

Based on the information collected and analysed in Stage One (both quantitative and qualitative), there were indications of high coverage in some areas and low coverage in others. Hypotheses were then set for OTP and for SFP. These hypotheses were tested in the stage 2 of the SQUEAC Survey by applying the simplified LQAS formula $d = (n/2)$ against the 50% SPHERE standard for Coverage in Rural Areas.

Hypothesis statements:

- 1. Villages with active CHVs have routine case finding and referral of SAM/MAM cases thus high coverage*
Villages with inactive CHVs have poor case finding and referral of SAM/MAM cases thus low coverage
- 2. Villages located in pastoral livelihood zones have low coverage(*pastoralists migrate during dry seasons to far places in search of pasture for their livestock out of reach of IMAM services)*
Villages located in Agro-pastoral livelihood zones have high coverage
- 3. Villages located far(>7.5km or >1hr trekking distance) from OTP and SFP sites have low coverage*
Villages located near (<7.5km or <1hr trekking distance) to OTP and SFP sites have high coverage
- 4. Facilities providing integrated health and nutrition activities have high coverage*
Facilities with limited/no integrated health and nutrition activities have low coverage

To confirm the first hypothesis villages with active CHV Nginyang centre and Kadokoi were selected and villages with inactive CHV Atulayan and Morunyangai village were selected. To confirm the second hypothesis pastoral villages Natan and Riongo were selected and in agro pastoral villages Churo and Riwo were selected. To confirm the third Hypothesis far villages from OTP and SFP sites Marsapit and Nakorete were selected and villages near OTP and SFP sites Pompo/Chemolingot centre and Komolion were selected. To confirm the fourth hypothesis villages served by facilities providing integrated health and nutrition activities Chepelow village and Churo dispensary were selected and villages served by facilities providing limited/ no integrated health and nutrition activities Kalapata village/dispensary was selected. Results were analysed as shown in the tables below.

Table 6: Results for small-area survey for SAM in East Pokot



Hypothesis	Villages	Total screened	SAM covered	SAM not covered	Total cases covered	Total not covered	Decision rule (50%)	Confirmation of hypothesis
Hypothesis 1 (villages with active CHVs have high coverage whereas villages with inactive CHVs have low coverage)	Nginyang centre	99	0	0	0	1	d1=0.5	Not confirmed
	Kadokoi	80	0	1			d2=0	
	Atulayan	68	0	1	0	1	d1=0.5	confirmed
	Morunyangai	31	0	0			d2=0	
Hypothesis 2 (Villages in Agro-pastoral have high coverage whereas villages in pastoral have low coverage)	Natan	47	0	1	0	2	d1=1	confirmed
	Riongo	27	0	1			d2=0	
	Churo centre	51	1	0	1	0	d1=0.5	confirmed
	Riwo	30	0	0			d2=1	
Hypothesis 3 (villages near to the health facilities have high coverage whereas villages far from the health facilities have low coverage)	Marsapit	39	0	0	2	0	d1=1	Not confirmed
	Nakorete	88	2	0			d2=2	
	Pompo/Chemolingot Centre	68	0	0	2	1	d1=1.5	Confirmed
	Komolion	47	2	1			d2=2	
Hypothesis 4 (villages with integrated health and nutrition services have high coverage whereas villages with no integrated villages have low coverage)	Chepelow village	58	1	0	1	0	d1=0.5; d2=1	confirmed
	Kalapata	83	0	0	0	0	d1=0; d2=0	confirmed

Table 7: Results for small-area survey for MAM in East Pokot

Hypothesis	Villages	Total screened	MAM covered	MAM not covered	Total cases covered	Total cases not covered	Decision rule (50%)	Confirmation of Hypothesis
Hypothesis 1 (villages with active CHVs have high coverage whereas villages with inactive	Nginyang centre	99	1	10	1	17	d1=9	Rejected
	Kadokoi	80	0	7			d2=1	
	Atulayan	68	3	0	3	0	d1=1.5	Rejected
	Morunyangai	31	0	0			d2=3	



CHVs have low coverage)								
Hypothesis 2 (Villages in Agro-pastoral have high coverage whereas villages in pastoral have low coverage)	Natan	47	1	3	2	3	d1=3	Confirmed
	Riongo	27	1	0			d2=2	
	Churo centre	51	4	4	6	5	d1=5.5	Confirmed
	Riwo	30	2	1			d2=6	
Hypothesis 3(villages near to the health facilities have high coverage whereas villages far from the health facilities have low coverage)	Marsapit	39	4	6	17	10	d1=13.5	Rejected
	Nakorete	88	13	4			d2=18	
	Pompo/Che molingot Centre	68	0	3	2	8	d1=5	Rejected
	Komolion	47	2	5			d2=2	
Hypothesis 4(villages with integrated health and nutrition services have high coverage whereas villages with no integrated villages have low coverage)	Chepelow village	58	4	3	4	3	d1=3.5; d2=4	Confirmed
	Kalapata	83	0	7	0	7	d1=3.5; d2=0	Confirmed

2.4 WIDE AREA SURVEY (3RD STAGE)

Wide Area Survey is the third stage of an IMAM coverage assessment. From the analysis, information obtained and confirmation of the hypotheses tested in the first and second stage, this stage seeks to now establish the coverage rate of the IMAM intervention within the area under investigation. The stage gives consideration to how boosters and barriers (BB) affect the coverage of the intervention being assessed.



In an effort to establish the coverage for supplementary feeding program in the sub-County, the assessment teams approached it by first developing the PRIOR. Prior is an estimate of the actual coverage that considers Boosters and Barriers Questioning (BBQ) process.

2.4.1 Calculating Prior

Before proceeding to the wide area survey for the sub counties, the prior distribution for SAM and MAM were developed using the following four methods:

- Concept Map
- Community Belief
- Unweighted boosters and barriers
- Weighted boosters and barriers

Concept Map

The Survey involved developing a concept map which is a graphical data-analysis technique that is useful for representing relationships between findings. Concept-maps show findings and the connections (relationships) between findings. Concept-maps are useful for working out and communicating how different findings (e.g., barriers/boosters) are related and interact with each other in complex or cyclical processes, and in forming hypotheses for further investigation. Concept-maps are also useful when scoring findings to estimate overall program coverage. Using the concept map the number of positive links/boosters links were added to the minimum coverage 0% and the number of negative links/barrier links were subtracted from the maximum coverage 100% then the average was identified.

Weighted Barriers and Boosters

In this method, all the barriers and boosters which were identified in stage 1 and 2 were weighted by giving a score. Each barrier and booster in the list was given a percentage weight in relation to how much effect it would have on increasing or decreasing coverage. Scoring was done using a scale of between 1% to 5% where 5% was given as maximum effect and 1% representing minimum effect. The total weight of Boosters was added to the minimum coverage (0%) and the total weight of barriers subtracted from the maximum coverage (100%) then the average was identified.

Unweighted Barriers and Boosters

In this method, all the barriers and boosters which were identified in stage 1 and 2 were given same score to each (score=1) to assume each has the same impact on coverage. The total



number of Boosters was added to the minimum coverage (0%) and the total number of barriers subtracted from the maximum coverage (100%) then the average was identified.

Community Belief

In this method, the assessment team participated to estimate the coverage based on their belief of the most probable value that would reflect the OTP/ SFP program from experience they had in the field and also during program implementation.

Establishing Averaged Prior Mode

OTP prior Mode

Unweighted BBQ = $\{(100-22) + (0+16)\}/2 = 47\%$

Weighted BBQ = $\{(100-61) + (0+41)\}/2 = 40\%$

Histogram = 51%

Concept map (20 negative links and 17 positive links)
= $\{(100-20) + (0+17)\}/2 = 48.5\%$

Average prior Mode = 46.6%, uncertainty of ± 20

Alfa and beta was calculated where

$\beta = 16.5$

$\alpha = 14.6$

Precision = 12%

By plotting prior mode, alfa (α), beta (β) and precision in Bayes calculator a total sample size (n) of the children under five required for OTP was calculated to be 35

SFP prior Mode

Unweighted BBQ = $\{(100-15) + (0+12)\}/2 = 48.5\%$

Weighted BBQ = $\{(100-44) + (0+35)\}/2 = 45.5\%$

Histogram = 50%

Concept map (14 negative links and 13 positive links)
= $\{(100-14) + (0+13)\}/2 = 49.5\%$

Average prior Mode = 48.4%, uncertainty ± 20

Alfa and beta was calculated where

$\beta = 16.2$

$\alpha = 15.0$

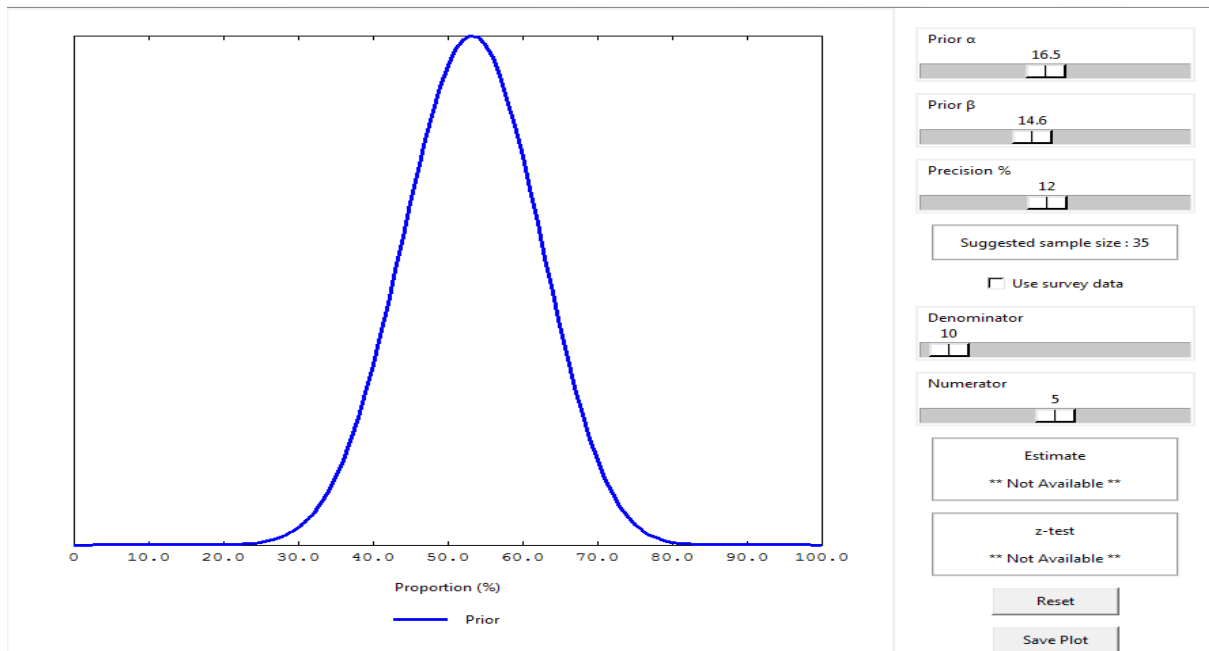
Precision = 12%



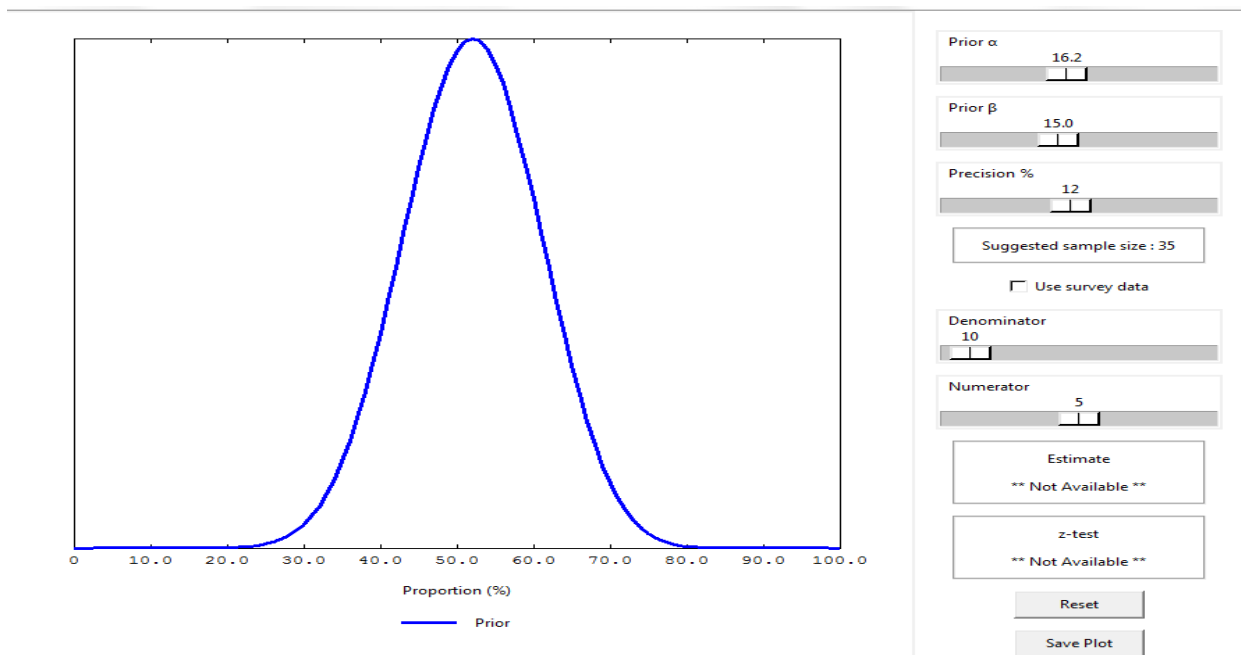
By plotting prior mode, alfa (α), beta (β) and precision in Bayes calculator a total sample size (n) of the children under five required for SFP was calculated to be 35.

2.4.2 Sampling and Selection of Villages for Wide Area Survey

The sample size for SAM and MAM cases for wide area survey was calculated using Bayes calculator. By plotting OTP prior mode, alfa (α), beta (β) and precision in Bayes calculator a total sample size (n) of the children under five required for OTP was calculated to be 35.



By plotting SFP prior mode, alfa (α), beta (β) and precision in Bayes calculator a total sample size (n) of the children under five required for SFP was calculated to be 35.



In order to determine the number of villages which would yield the required sample size for both programs, the following formula was used

$$n \text{ villages} = \frac{n}{\text{average village population} \times \frac{\% \text{population of 6 to 59 months}}{100} \times \frac{\text{prevalence}}{100}}$$

SAM villages calculated

Average Village population=444

Expected SAM cases=35

% Children (6-59) months=15.3%

% SAM Prevalence =2.7%

n=19 villages

MAM villages calculated

Average Village population=444

Expected MAM cases=35

% Children (6-59) months=15.3%

% MAM Prevalence =8.1%

n=6 villages





2.5 Results of Wide Area Survey

The wide area survey team visited 19 villages doing door to door case finding for MAM and SAM cases in program as well as MAM and SAM cases not in program and MAM and SAM Recovering cases. The survey team managed to get 76 MAM cases (16 covered, 60 not covered) and 3 recovering MAM cases in 19 sampled villages. The team also managed to get 22 SAM cases (8 covered and 14 not covered) and 6 recovering SAM cases in the 19 sampled Villages.

2.5.1 Coverage Estimation

To estimate the program coverage rate, data from the 'Wide Area Survey' and the pre-set Bayesian SQUEAC prior was used. For this survey, Point coverage were estimated. Point Coverage was used for OTP because No Recovery case was found. Single coverage was used to estimate SFP coverage.

Calculating single Coverage- OTP

The following formula was used to calculate OTP single coverage

$$\text{Single coverage estimate} = \frac{\text{numerator } (N = C_{in} + R_{in})}{\text{Denominator } (D = C_{in} + R_{in} + C_{out} + R_{out})}$$

- C_{in} is number of Cases covered in the program
- R_{in} is number of cases recovering in the program
- C_{out} is number of cases not covered in the program
- R_{out} is number of recovering cases not in program

Numerator=14

Denominator=31

From the Bayesian-Software estimated 'single' coverage was at **45.9% (34.3% - 58.5%)** and P- Value =0.902.

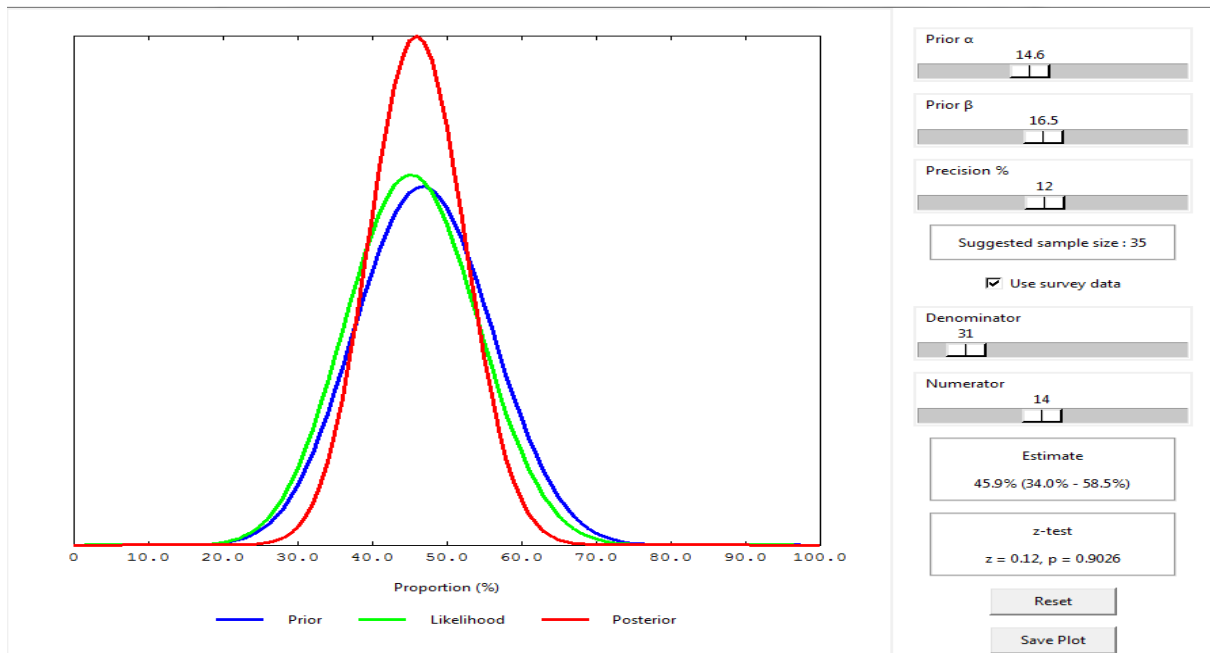


Figure 16: OTP single Coverage Estimation

There was a considerable overlap between the prior and the likelihood (prior and likelihood did not conflict). Thus the survey results could be used assertively. The OTP coverage was below the SPHERE Standards of 50% for Rural.

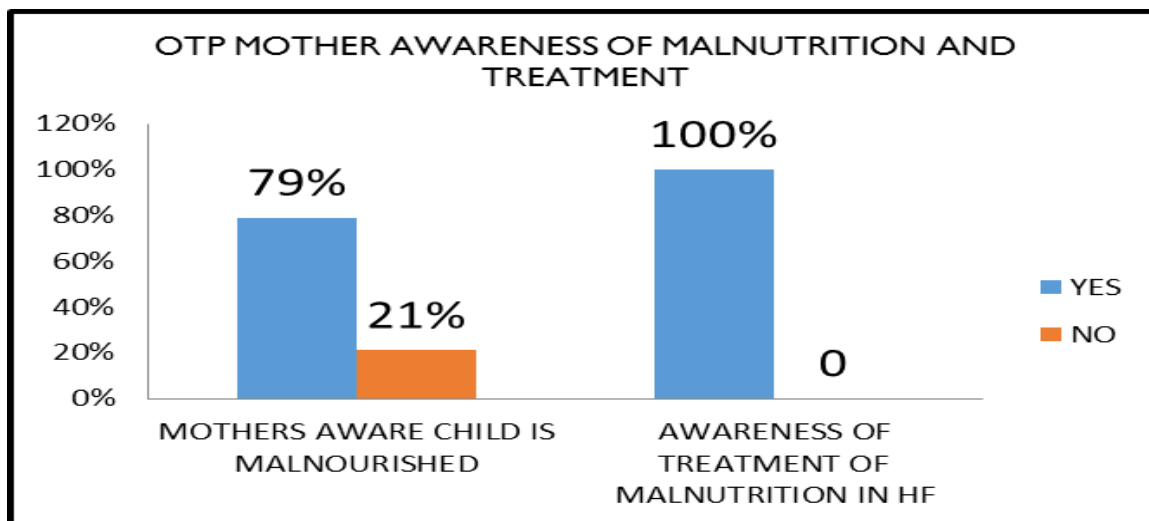


Figure 17: Awareness of malnutrition OTP Program and Treatment



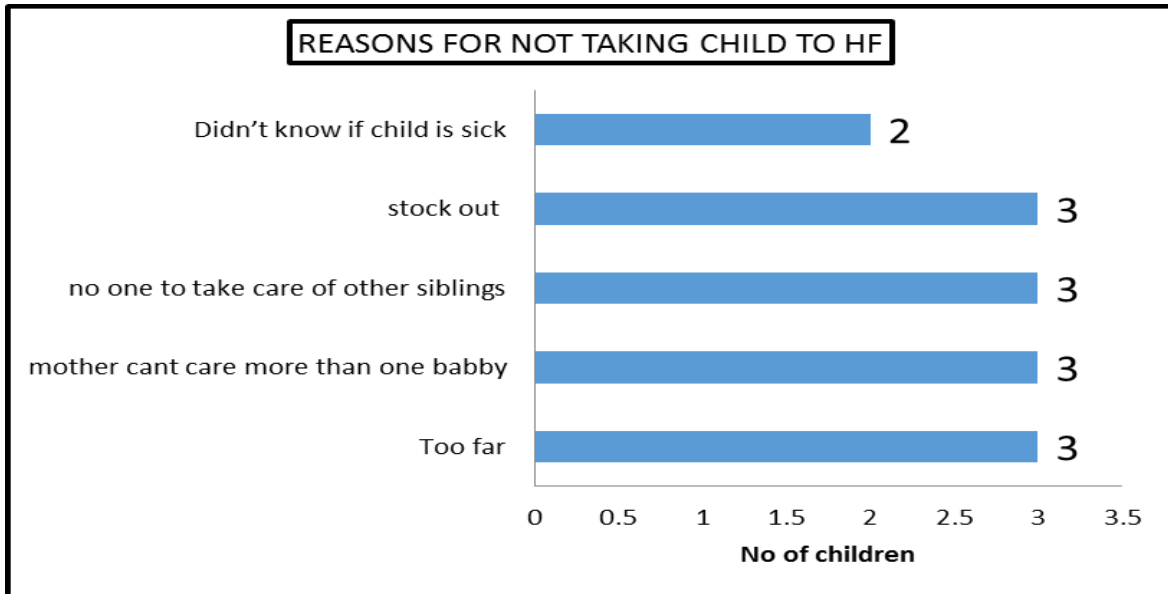


Figure 18: Reasons for Non-Attendance to OTP Program

Calculating SFP single coverage

The following formula was used to calculate SFP single coverage

Single coverage estimate = numerator ($N = C_{in} + R_{in}$) / Denominator

($D = C_{in} + R_{in} + C_{out} + R_{out}$)

- C_{in} is number of Cases covered in the program
- R_{in} is number of cases recovering in the program
- C_{out} is number of cases not covered in the program
- R_{out} is number of recovering cases not in program

Calculated numerator=19

Calculated denominator=83



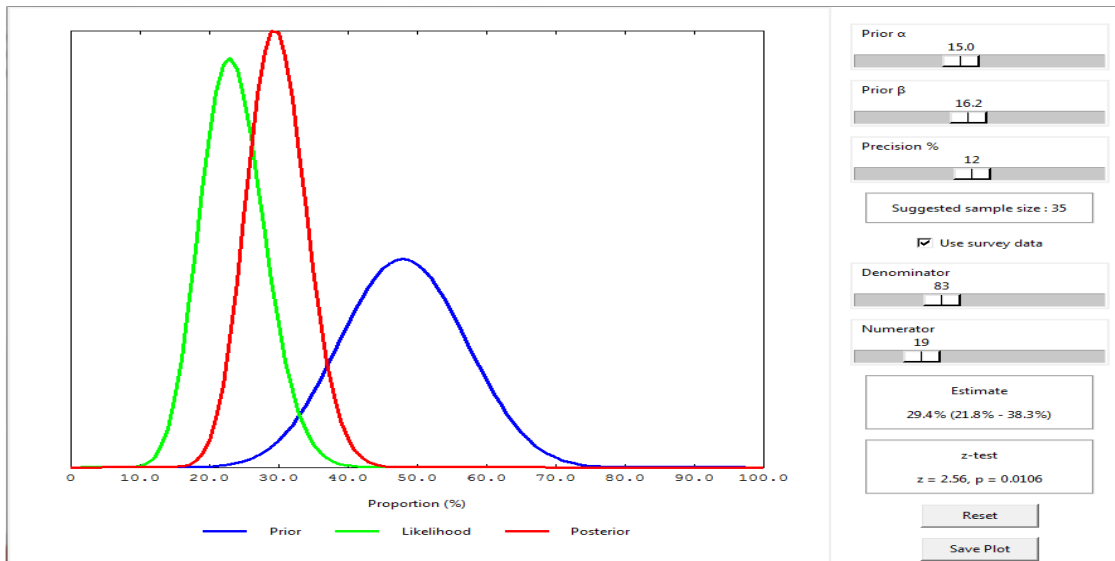


Figure 19: SFP single coverage Estimate

From the Bayesian-Software estimated 'single' coverage was at **29.7% (21.9% - 38.7%)** and P-Value = 0.0106

There was a considerable overlap between the prior and the likelihood (prior and likelihood do not conflict) thus the survey results could be used assertively. SFP Coverage was Below the SPHERE Standards 50% for Rural.

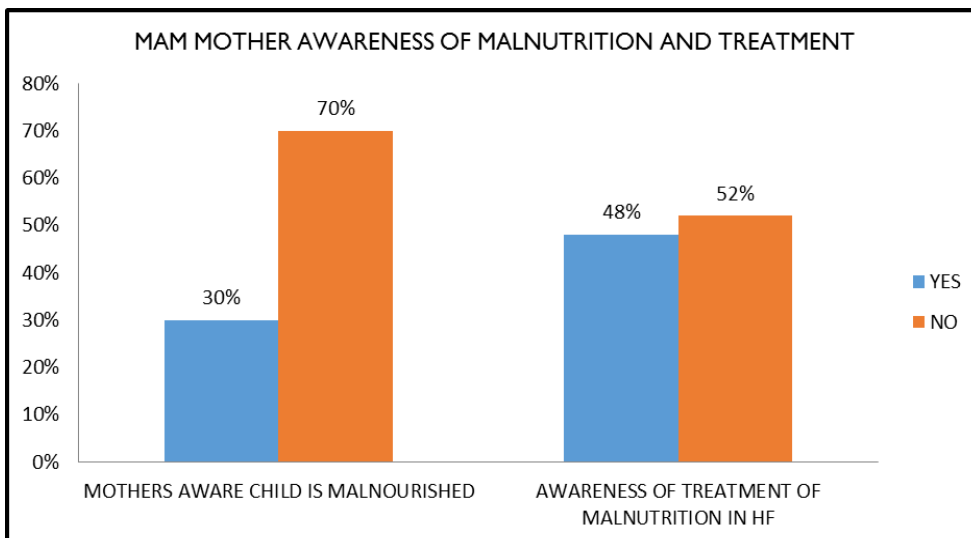


Figure 20: Awareness of malnutrition SFP Program and Treatment



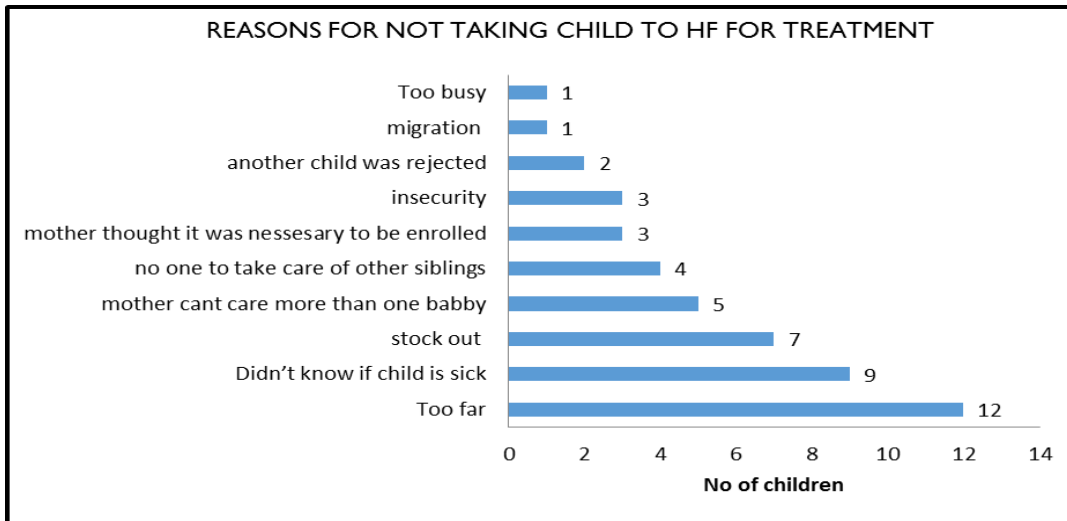


Figure 21: Reasons for Non-Attendance to SFP Program



3.0 RECOMMENDATIONS

Table 8: Summary of Recommendations

Barrier	Recommendation	Responsible	Timeline
Stock out	Hold monthly review meeting for nutrition data and commodities forecasting (County/SCNOs, HRIOs)	CNC, NSO, WVK, KEMSA	By 15 th of every month
	Facilitation of SCNO to do LMIS reporting	CNC	March 2018
	Carry out Health facilities in-charges sensitization on LMIS	SCNO, WVK	March 2018
	Produce and distribute MoH reporting tools	CNC, WVK	March 2018
	Recruit more nutritionists	County leadership	July 2018(next financial year)
Long distance to the health facilities	Re-map and carry out integrated outreach clinics	CHMT, SCHMT, WVK, NSO, KRCS	March 2018
	Implement IMAM at all health facilities in the sub-county	SCNO, WVK, CNC, NSO	July 2018
	County government to equip and operationalize all new health facilities in the sub-county	CHMT, SCHMT	From next financial year
Migration	Re-map and carry out nomadic integrated outreach clinics	CHMT, SCHMT, WVK, NSO, KRCS	July 2018
Sharing of commodities	Sensitize the communities through wind up radios, community dialogues, and on contact at the health facilities	SCNO, BBCMA, WVK	January – June 2018
	Linkage of households with malnourished children to social food safety nets(County commissioners office, Catholic Diocese, Cash for Assets Creation	CHMT, SCHMT	Ongoing
	Conduct regular home visits by CHVs	CHMT, SCHMT	Ongoing
	Therapeutic feeding of malnourished children to be done at health facilities in case caregivers hold onto the vice	CHMT, SCHMT	Immediately
Lack of CHV motivation	County government to entrench Community health strategy in its policies and enumerate CHVs	CHMT, SCHMT	February 2018 (during second CIDP development)
Irresponsible parenting	Sensitize the communities through wind up radios, community dialogues, and on contact at the health facilities, barazas	SCNO, BBCMA, WVK	Jan- Jun 2018
Poor technical knowledge by CHVs on IMAM	Train all CUs on nutrition technical modules(Basic & IMAM)	SCHMT, CHMT, NSO, WVK	From July 2018
	Scale up BFCI to all CUs in the sub-county	SCHMT, WVK	Jan 2018 onwards
	Continuous mentorship and on job training	SCNO, WVK, CNC, NSO	Ongoing
	Provision of IEC materials	SCNO, WVK,	Ongoing



		CNC, NSO	
Poor health seeking behaviour	Scale up surge approach to all health facilities in the sub-county	SCHMT, WVK	Feb 2018
	Scale up BFCI to all CUs in the sub-county	SCHMT, WVK	From Feb 2018
	Do active case finding through CUs	SCHMT, WVK	Ongoing
	Community dialogue	SCHMT, WVK	Ongoing
	Community sensitization through chiefs, religious leaders, social accountability groups, MCAs	SCHMT, WVK	To start on Feb 2018
	Adherence to IMAM protocol to build the confidence of community on IMAM services	SCHMT, WVK	Immediately





4.0 APPENDICES

Annex I: OTP Barriers and Boosters

Barrier	Unweighted	Weighted	Booster	Unweighted	Weighted
Poor health seeking behavior	1	4	Good health seeking behavior	1	1
Community lack knowledge of malnutrition and malnutrition signs	1	1	Community knows malnutrition & signs of malnutrition	1	3
Community Lack knowledge on IMAM services (eligibility) operation.	1	4	Community understand that RUTF is treatment/health education/treatment protocol	1	1
Sharing of commodities	1	4	Carers understand that RUTF is treatment/health education/treatment protocol	1	3
Community members not aware of the programme	1	3	Community is aware of IMAM services	1	3
Perception of IMAM commodities as food by the community	1	4	Leaders/key figures are aware/have knowledge of IMAM program.	1	3
Distance/cost of transport	1	5	Accessibility of the service:	1	4
Migration	1	4	Availability of the service	1	1
Irresponsible parenting(alcoholism)	1	4	Good perception of the program by the mothers/CHV		
Stigma(lazy, irresponsible mother, curse) shame, disability	1	3	CHVs knows their roles(active)/trained	1	4
Inaccessibility of the service:	1	2	Health facility with enough Staff and capacity	1	3
Stock out	1	4	Good documentation, Regular support supervision and record keeping by staff	1	1
Facility not offering IMAM services	1	1	Defaulter tracing in place(Retention strategy)	1	1
Community structures not effective	1	1	Good feedback and regular meeting between H/f staff and CHV	1	2
Community not appreciating the service - commodities have side effect or diarrhea	1	1	Good information sharing about IMAM services by the CHV and the community/health workers/ NGOs	1	3
Lack of motivation to the CHV	1	4	Good Referral/transfer & Follow up strategy	1	3
Few staff in the HF	1	3			
Staff not following IMAM protocol	1	1			
Female labour	1	3			
No defaulter tracing (No Retention strategy)	1	2			
Poor coordination/communication between staff/community and CHV	1	1			
Poor Referral/transfer & Follow up strategy	1	2			
TOTAL	22	61	TOTAL	16	41



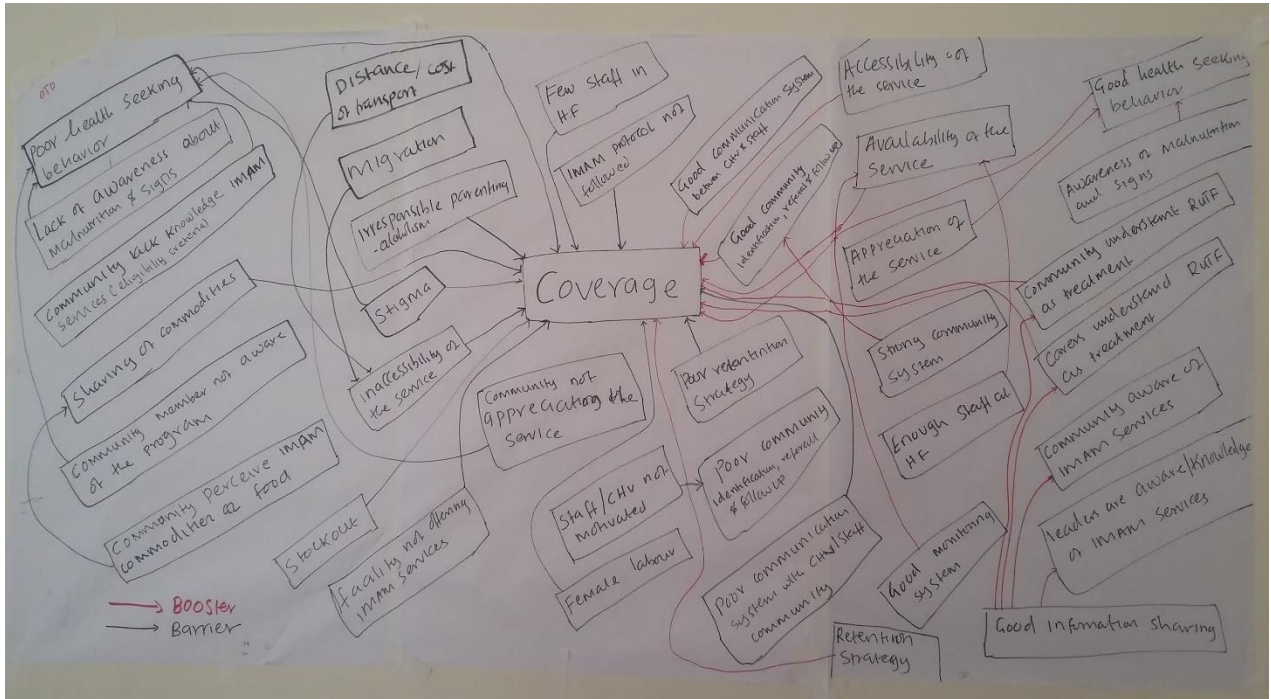
Annex 2: SFP Barriers and Boosters

Barrier	Unweighted	Weighted	Boosters	Unweighted	Weighted
Poor health seeking behavior	1	4	Good health seeking behavior	1	1
Sharing of commodities	1	4	Community is aware of IMAM services	1	2
Lack Awareness of the service/program	1	3	Carers awareness of the service/program	1	4
community lack knowledge on malnutrition	1	1	Leaders/Key figures are aware of IMAM programme	1	3
Distance/ cost of transport	1	5	Community Aware about malnutrition and malnutrition signs	1	2
inaccessibility of the service	1	3	Accessibility of the service	1	4
Health facility not offering IMAM services	1	1	Appreciation of the service	1	4
Community not appreciating the program- commodity has side effects	1	1	Capacity to provide a quality service (from health staff)	1	4
Stock out	1	5	Good documentation, support supervision and coordination	1	3
Lack of motivation to CHV	1	4	CHV know their roles(active)	1	5
Lack of Capacity to provide a quality service (from health staff)	1	2	Communication system with CHV/community/staff	1	1
Irresponsible parenting	1	4	Good Identification / strategy & enrollment / Referral/transfer & Follow up strategy	1	2
No system for defaulter tracing (No Retention strategy)	1	3			
Poor coordination/ communication between staff and CHV	1	1			
Poor Identification/strategy & enrollment /Referral/transfer & Follow up strategy	1	3			
TOTAL	15	44	TOTAL	12	35

Annex 3: Concept Map for OTP Coverage

Positive links=13, Negative links=14





Annex 4: Concept Map for SFP Coverage

Positive links=17, Negative links=20



