



**Semi-Quantitative Evaluation of Access & Coverage
(SQUEAC)**

Benadir Region

Mogadishu

Somalia

July-August 2012

ACRONYMS

ACF	Action contre la faim
NGOs	Non governmental organizations
IMAM	Integrated management of acute malnutrition
SQUEAC	Sei-qualitative evaluation of access and coverage
EPI	Extended program of immunization
MCH	Mother Child Health
PR	Protection ration
RUTF	Ready to use therapeutic food
OTP	Outpatient therapeutic program
PPN	Plumpynut
FFW	Food for Work
IDP	Internally displaced populations
MUAC	Mid upper arm circumference
TFP	Therapeutic feeding program
PLW	Pregnant and lactating women
UNICEF	United nations children's funds

ACKNOWLEDGEMENTS

ACF would first and foremost thank the Mogadishu community, Administrative authorities for their commitment to facilitating smooth running of ACF IMAM and health programs in Mogadishu and in ensuring that timely treatment is available for the children who are severely acutely malnourished .

Thank you to the ACF field teams and for the support and hard work throughout the normal program implementation and SQUEAC investigation.

Sincere appreciation goes to ACF-UK headquarters Evaluation, Learning, & Accountabilities Unit, specifically Saul Guerrero for facilitating the assessment process.

EXECUTIVE SUMMARY

SQUEAC (Semi-Quantitative Evaluation of Access & Coverage) was conducted by ACF in four districts in Mogadishu. The SQUEAC design methodology was used to map the area of operation to regions where coverage is perceived to be high and low based on investigations and analysis done by/with key players and staff in the area. The hypothesis was then tested using a real survey which happened at stage 2 of the process. Key barriers/boosters to access were also discussed and tested through thorough analysis using, patterns, trends, seasons and livelihood of the target population.

Due to the complicated context of Somalia, a decision was reached to carry out the first and second stage of SQUEAC, leaving out the third stage. This would however be done later in the whole of Mogadishu through the leadership of UNICEF and therefore, ACF saw it as an opportunity to be part of the bigger NGO forum that would work together to achieve the broad picture of coverage in the region.

From the actual findings the following are the major barriers to access:

- Insecurity- Some areas are being avoided due to insecurity .
- Poor road networks and insufficient transport- OTP centers with poor road network are avoided .
- Location of the centres- Sites built at the edge of district boundaries in areas where the populations are not hugely settled.

The Overall SQUEAC coverage including ACF and other actors was 60.5% CI 95% (56.9-63.9). The ACF alone coverage was found to be 39.0% CI. 95% (35.7-42.3)

Major reasons for defaulting include

- Population movement
- Insecurity
- Competition between NGOs

Challenges faced by ACF

- Slow response during emergencies
- Weak community follow up strategy
- Uncoordinated emergency aid.

Factors promoting high coverage

- Inclusion of protection ration
- Availability of MCH services.
- Community outreach program
- EPI- Extended program on immunization

TABLE OF CONTENTS

Specific objectives of the survey:.....	6
Objective:	7
Program admissions (overall numbers).....	7
Admissions vs Seasons	8
Admissions by OTP sites.....	8
Trends on Total admission per health facility	10
Admissions by Home Location.....	10
Admissions by location using Maps.....	11
MUAC on admission.....	12
Program Exits.....	13
Defaulters.....	13
Total defaulters per month.....	13
Defaulter by facility.....	14
Defaulters per district.....	15
Defaulters by Visit.....	16
Pipeline break.....	17
Training and data collection	19
Small area findings.....	20
Findings for the entire area (all SAM cases for both ACF and other agencies).....	20
Finding for Entire Area (exclusively ACF beneficiaries).....	20
ACF coverage	21
Combined coverage (ACF plus other agencies).....	21
Annexes:	23

BACKGROUND

In the last 20 years ACF has been implementing IMAM program in Mogadishu Somalia Capital. Throughout the years, ACF has been implementing the programs directly through static and mobile centres. The implementation has been directly and not through local partners. ACF has maintained proper coordination with other stakeholders in the area i.e. Local NGOs, International NGOs and local authorities. This has ensured proper linkage of beneficiaries so that wholesome treatment is available for all the stages of treating IMAM. In addition to the IMAM activities, the program has integrated MCH in one of its most active sites.

After the announcement of famine in July 2011, interventions of the programme were scaled up with inclusion of children 5-10 years in the program, introduction of PLW programme and commencement of outreach activities in the IDP camps. Different centres were opened for different number of days depending on the workload. Through experience some centres were identified to have huge numbers of beneficiaries.

The main objective of the nutrition programme is to improve the health and nutrition status of vulnerable groups in districts where ACF operates. Out of the 14 districts in Mogadishu ACF is operational in 5 as shown below.

District	OTP	SC	MCH	Status	No of days in a wk
Abdi Aziz	Forlanini	Forlanini	-	Permanent	5
Waberi	Waberi	-	-	Mobile	2
Wardhigley	Wardhigley	-	-	Mobile	1
Dharkenley	Kahda	-	-	Mobile	Currently closed
Wadajir	Hodan	Hodan	Hodan	Permanent	2

SQUEAC was conducted using data acquired during the last one year i.e. June 2011-May 2012 which represents the most recent data capturing.

Overall objective of the survey:

To evaluate access and coverage of TFP programmes in districts where ACF implements IMAM activities. (Hodan, Waberi, Abdulaziz and Wardhigley)

Specific objectives of the survey:

- Identify factors affecting uptake of TFP services in each district.
- Develop specific recommendations to improve acceptance and coverage of programs
- Enhance competencies of ACF technical teams in SQUEAC methodology.

The coverage and access assessment was to provide key guidance to an important component of nutrition program that has not been taken into consideration for long. This was to help in internal mapping of beneficiary profile which could be used to restructure

movement and location of interventions to strengthen implementation and act as a guide in case there is need for expansion.

As this was happening around a time of strategizing in the organization, the recommendations/findings could be used to re-align the strategy to most appropriate approach contextualized to seasons.

The SQUEAC assessment was jointly done by ACF Somalia Mission and ACF-UK Evaluations, learning and accountability Unit taking the lead.

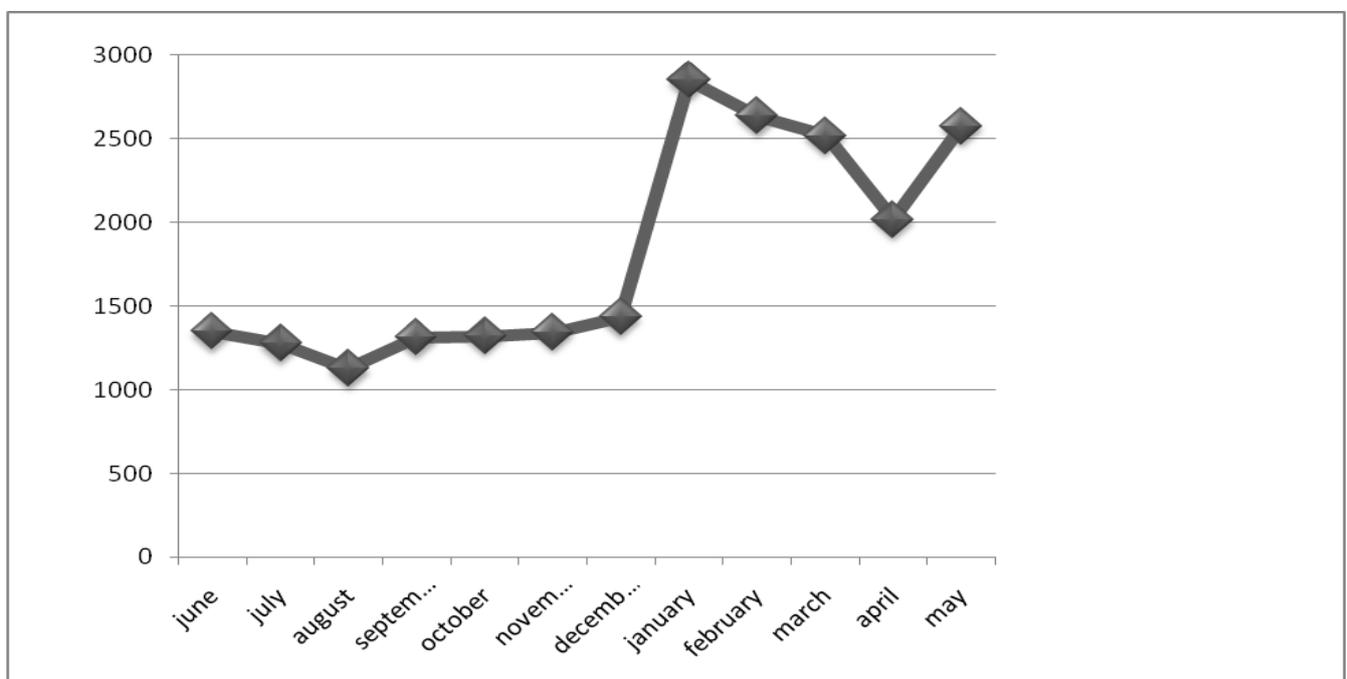
STAGE ONE

Objective:

The objective of stage one was to identify areas of low and high coverage and the reasons for coverage failure using programme data or easy to collect quantitative and qualitative data.

In this stage, investigations were done on routine program data, the trends, patterns observed and discussions were used to classify the different acf sites (OTP) into 2 categories of: 1. high coverage and 2. low coverage areas. The classification above and reasons for classification to either category were taken as hypothesis which was tested in the next stage.

Program admissions (overall numbers)



For the past one year i.e. the period between June 2011 and May 2012, ACF saw a significant number of admissions in the program. A total number of approximately 23987 admissions were recorded.

The numbers of admission is as illustrated in the line graph above. A general look in the graph shows a rise in admission around the month of August to September 2011. According to the discussions, the rise in August to September was attributed to the famine conditions which caused high levels of food insecurity causing increase in the number of malnourished children. Most of the populations in Somalia moved to Mogadishu attracted by the promise of humanitarian assistance.

In the period from December 2011 to January 2012, the graph shows a very sharp increase in admissions. This is the time ACF introduced a program for children aged between 5-10 years. Protection ration was also introduced around this time which was seen to encourage mother and caretakers to bring children for screening therefore increasing the admissions. The additional incentives introduced by these two changes served to attract a number of new cases.

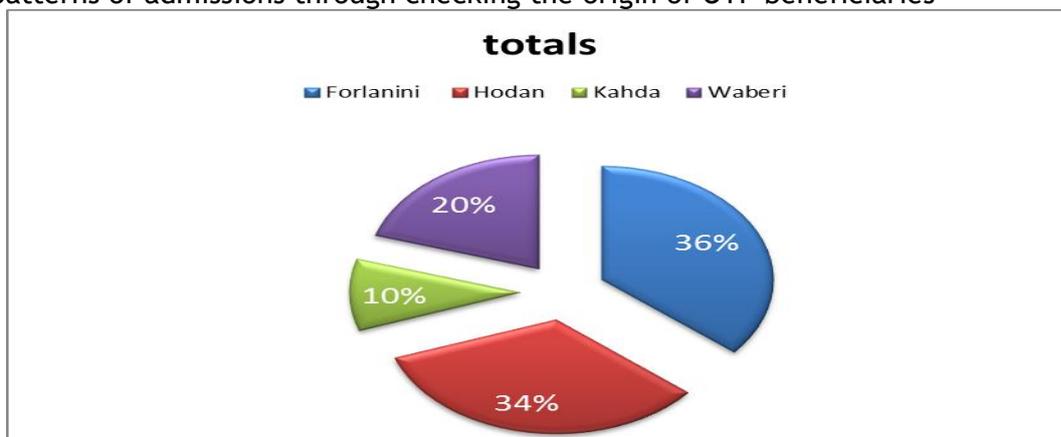
The drop around July and after February are both related to seasonal migration associated with the Gu and Deyr rains. In July, populations with farms (who do cultivation of crops) usually move out of Mogadishu in preparation for the rainy season which happens between July and August, the trend is also seen in January and March due to the same reason during the Gu rains. In addition, following the announcement of famine in July 2011, many international organizations came in with interventions which had attractive packages compared to or in addition to what ACF was offering. Most malnourished individuals would prefer to get admissions or handouts from these NGOs as compared to ACF and this led to decrease in admissions.

Admissions vs Seasons

The analysis of admissions in relation to seasons has shown a drop in trend during rains when both short and long rains approach. Most of the agropastoralists move to their farms to prepare their lands for farming. This trend comes clearly when all the graphs on admissions drop few weeks to start of rains and manifest a steady rise 2 weeks after the end of the rains. This mostly happens between July -August and March- May.

Admissions by OTP sites

Admissions per site was tabulated and a pie chart produced to further investigate the patterns of admissions through checking the origin of OTP beneficiaries



The pie chart represented above shows Forlanini recorded the highest number of admission, followed by Hodan, Waberi then Kahda respectively.

There was a clear difference in admission between the low admission sites and high admission sites.

Forlanini

This OTP was discovered to have beneficiaries from many districts and thus the highest number. The district is also densely populated explaining the high percentage of admissions in ACF database. In forlanini, there are less NGOs therefore residents have few options to choose from compared to other sites with many NGOs. Most of the inhabitants of Forlanini are residents and thus there is little movement in and out the area. OTP in Forlanini is opened 5 days a week allowing daily screening and admissions, this improves the accessibility of beneficiaries to the program.

Hodan

This OTP recorded the second highest number of admissions. Admissions in Hodan showed different district of origin. Hodan attract client from as far as Dharkenley. Hodan is a more secure location, has better road network void of roadblocks, it has enough transport(buses) which are used by beneficiaries from far.It is easier to access Hodan from Dharkenley than accessing Kahda which is nearer but accessibility is a problem due to lack of constant means of transport. **(see spacial map below)**

Although a bigger district, Hodan has a high number of NGOs , this explains why the whole huge population is not reflected in the admissions in TFP. Beneficiaries are divided among the many actors on the ground.

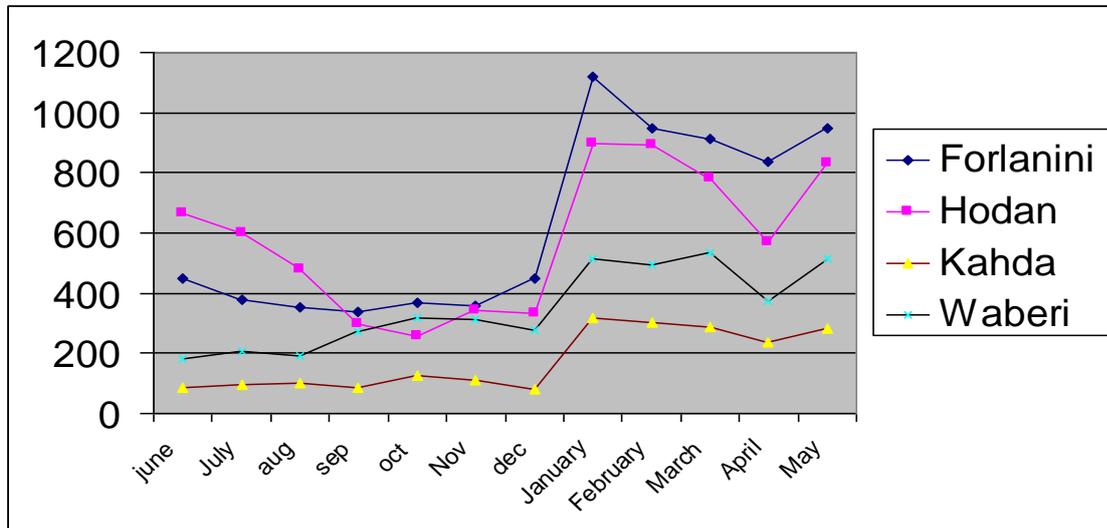
The MCH centre situated in Hodan creates attraction to the site. Mothers and caretakers seeking both medical treatment and nutrition would rather attend their appointments in a place with both MCH and nutrition care.

Kahda

This OTP recorded the least number of beneficiaries when compared to other four sites. Investigation attributed it to insecurity. Kahda is in areas administered by Alshabab causing alot of insecurity.the OTP site location is at the corner of the district and the site is opened once a week. Currently the OTP site is temporarily suspended due to insecurity.

Trends on Total admission per health facility

Investigations went further to look at admissions per health facility over time. The outcome is as shown in the graph below.



Between July and August, while other centres showed an upward trend in admissions, Hodan line indicates a drop. This is attributed to the fact that Hodan holds most of the IDPs thereore when insecurity increased in this period, the IDPs moved to Afgoye corridor; also after declaration of famine conditions in Somalia, competition among NGOs ensued and thus beneficiaries could shop around for NGO offering handouts thay they considered more valuable to them.

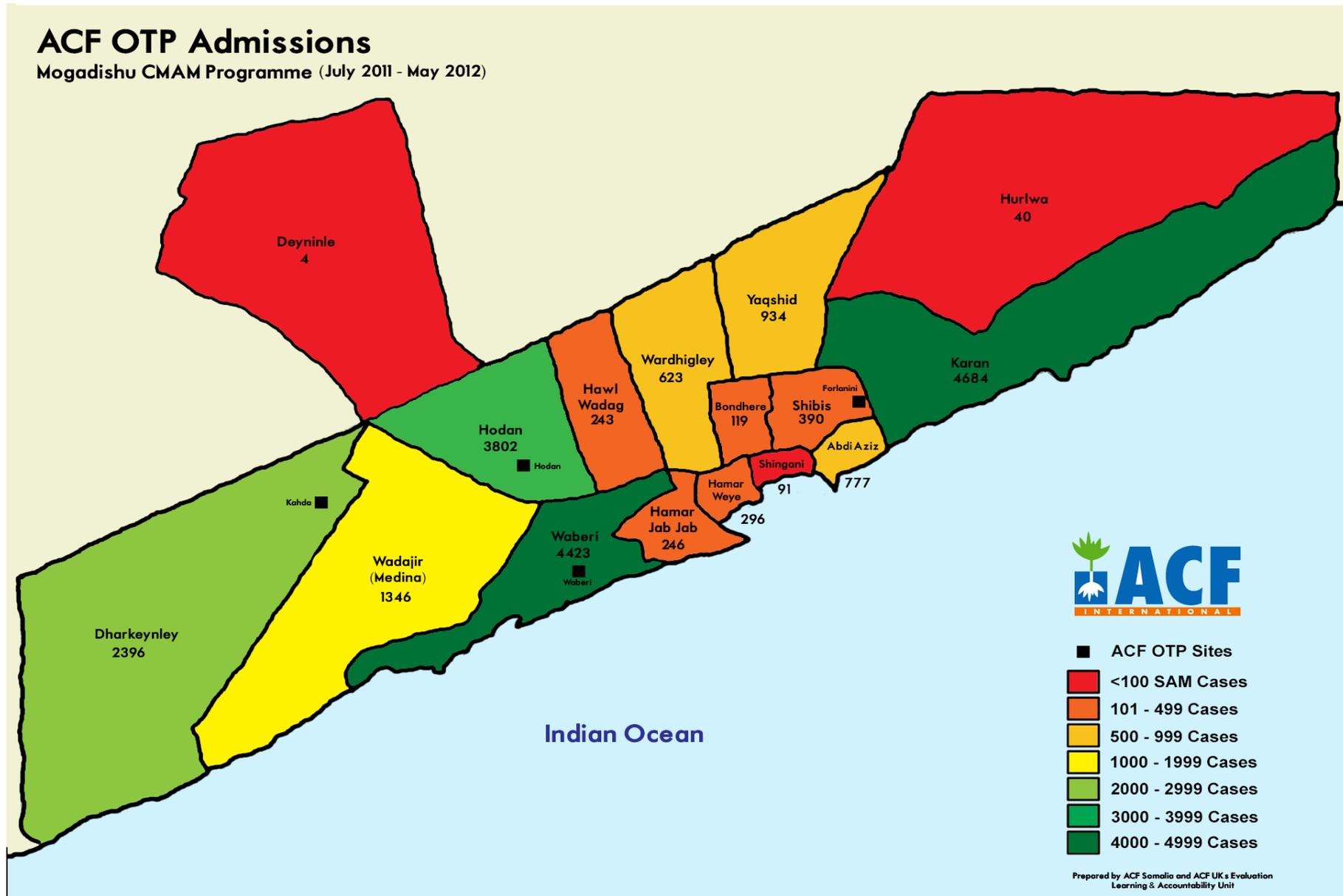
All through, Waberi and Kahda have a lower number of admissions compared to Hodan and Forlanini. Kahda has less IDP , it is opened once per week, it has a small population and also is insecure. These factors explain the low number of admissions.

Admissions by Home Location

Looking at the spacial map below, a high number of beneficiaries originate from Dharkenley. The closest place logically for them to visit would be Kahda but this is not happening; after discussions with project staff , it was concluded that most of these go to Hodan.

Another important thing to observe is , although ACF is not operational in Karan, a majority of admissions (4684) come from this district. Generally ACF receives beneficiaries from both targeted District and also from other surrounding districts which have OTP centeres run by other organisations for reasons not clearly known. Some malnourished clients are choosing to come to ACF sites over services available in their own areas. This could generally be attributed to the quality of services they receive from ACF.

Admissions by location using Maps



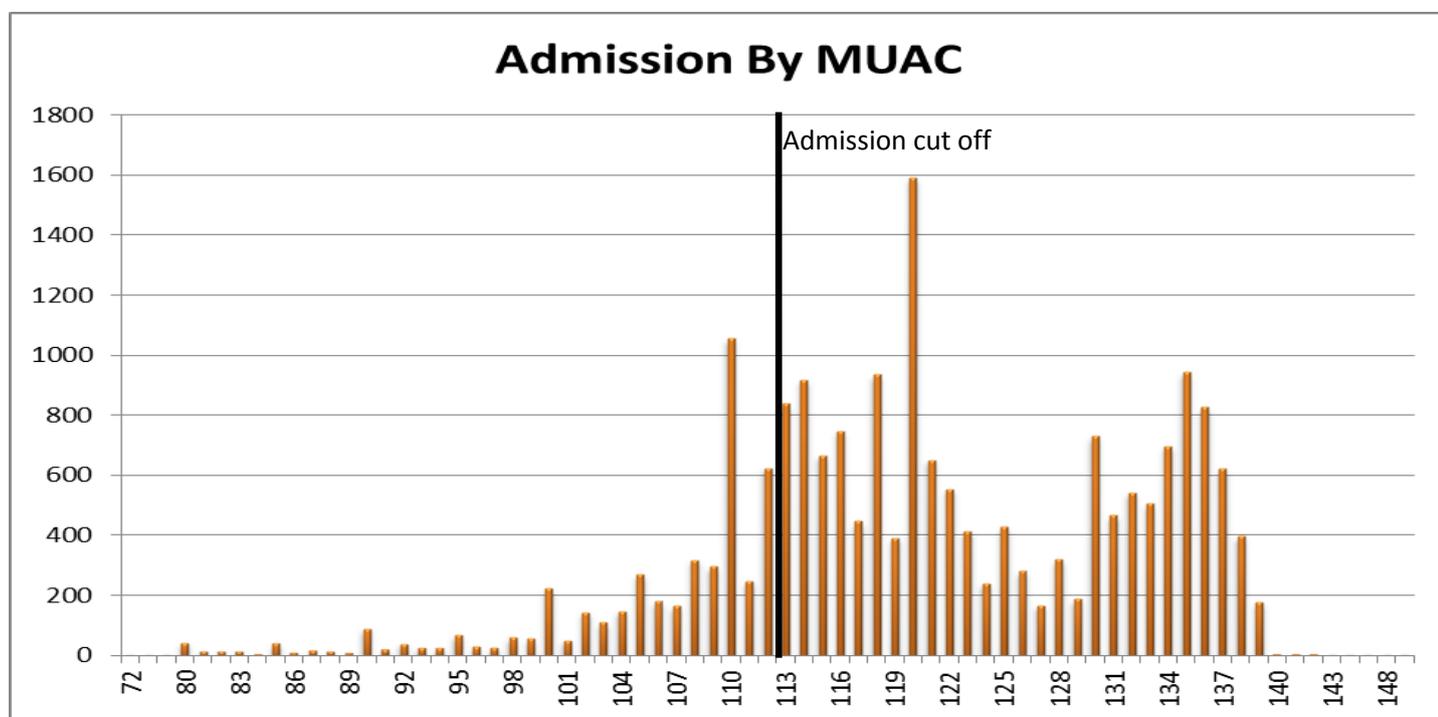
Kahda being an insecure area does not attract any clients from outside and some of clients expected to automatically get nutrition and health services in Kahda have preferred moving to other centres.

The least number of beneficiaries in the database originate from Deynile seeking services in Hodan. Investigations showed that the Deynile area is insecure and under full control of Ashabab explaining the few numbers of admissions from the area.

In the ACF database, the highest numbers of beneficiaries originate from Waberi, however the districts surrounding Waberi i.e Hamar Jab Jab, Hawl Wadag and Hamar Weyn registered a very low numbers in admissions. Waberi is considered the centre of humanitarian activity and there are usually influx of people from other surrounding districts.

MUAC on admission.

This was used to see the stage at which beneficiaries present themselves in the program. The assumption is that, late presentation can be used as a proxy indicator of access being difficult, whilst early presentation can be seen as a proxy indicator of barriers not being too pronounced. If the program is actively finding children and reaching out to all areas, children will be identified early enough and admitted to the program.



In the total graph above, most admissions appear to happen early enough before the child is <115cm MUAC. This is an indication that the active case finding is effective. The graph represents an ideal situation for IMAM, it shows ACF capture beneficiaries before they are adversely wasted. The graph also shows a lot of admissions >115; this is linked to children >5 years being included in the analysed data.

Further analysis of MUAC admissions with <95mm was done, discussions with the field staff indicated that most of the clients presenting with the low MUAC were hailing from far locations and thus the distance and time taken to arrive to centres was too long. Most children's nutrition status thus deteriorated on the way to the OTP centres.

Program Exits

Defaulters

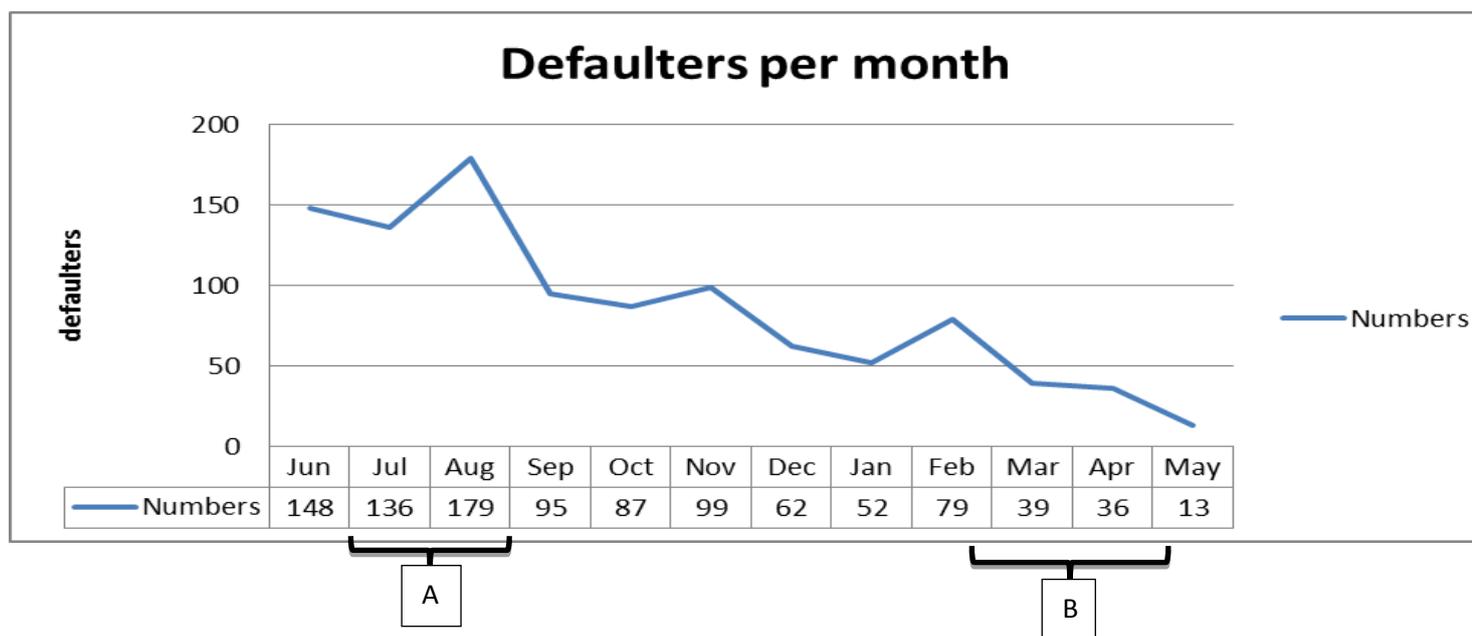
Coverage is as much about getting children as it is about retaining them until they are cured. High defaulter numbers could have negative effect on the coverage of any program. The investigations went ahead to analyse the trend of defaulters.

The general program indicators for the year was as shown in the table below; further investigation was done on defaulters .

Site	cured	dead	defaulter
forlanini	7605	10	372
hodan	7359	38	612
kahda	1885		119
waberi	3927	3	261
Wardhigley	273		
Grand Total	21049	51	1364

The rate of defaulter is 1364 out of the 21049 admissions.

Total defaulters per month



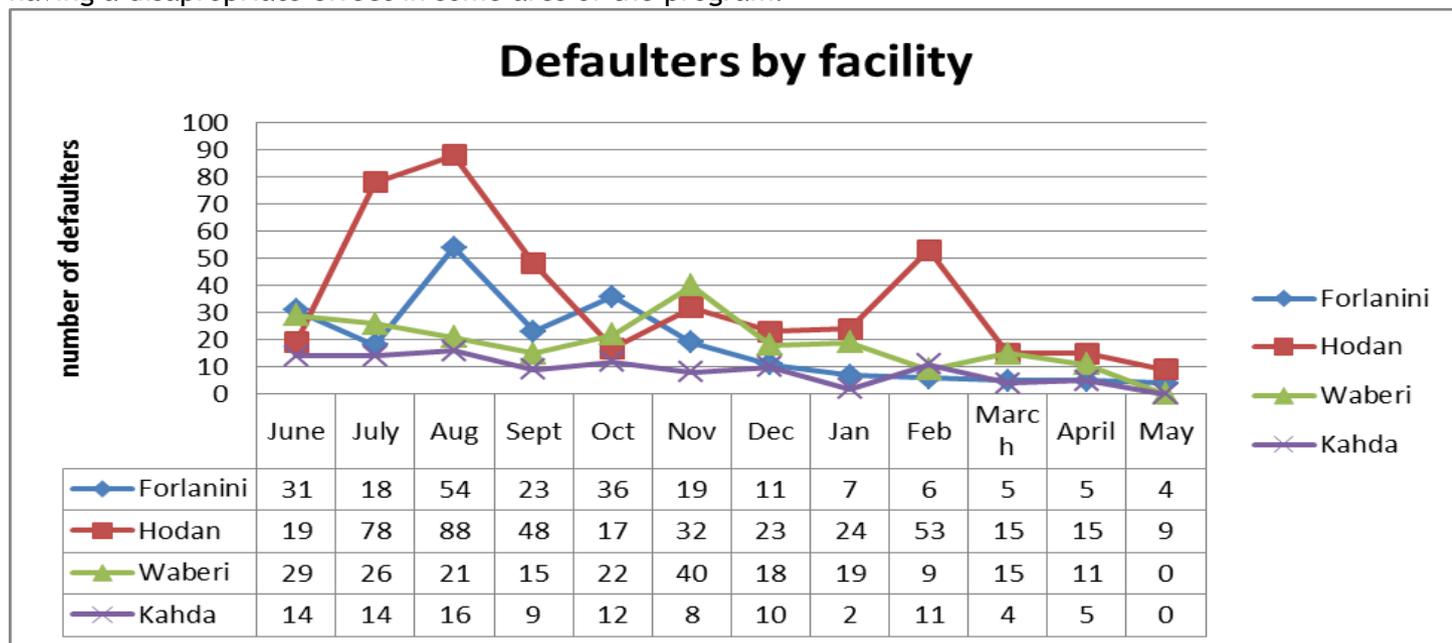
A- Point A above presents a sharp increase in defaulters between July and August- During this period, there was a huge fight in Mogadishu; the insecurity posed by the fighting caused some beneficiaries to move to safer areas away from the fights which were happening close to area of operation.

B- Point B presents a sharp decrease in defaulters- February was the second month when the Protection ration from ACF was introduced. The drop in defaulters could be attributed to this new program that attracted beneficiaries as many other NGOs had pulled out after famine was declared over. Protection ration therefore has had a strong effect on getting and keeping SAM children in the program.

Generally , it is important to note that the defaulter rate has taken a downward trend.

Defaulter by facility

This was done to see if defaulters was affecting all programme areas equally, or if specific issues were having a disapropriate effect in some ares of the program.



The period around June to August was very insecure in Hodan. General populations moved to other areas which included some of the beneficiaries enrolled in the OTP program. Insecurity therefore has direct negative effect on the program as it contributes to increase in defaulters as observed above.

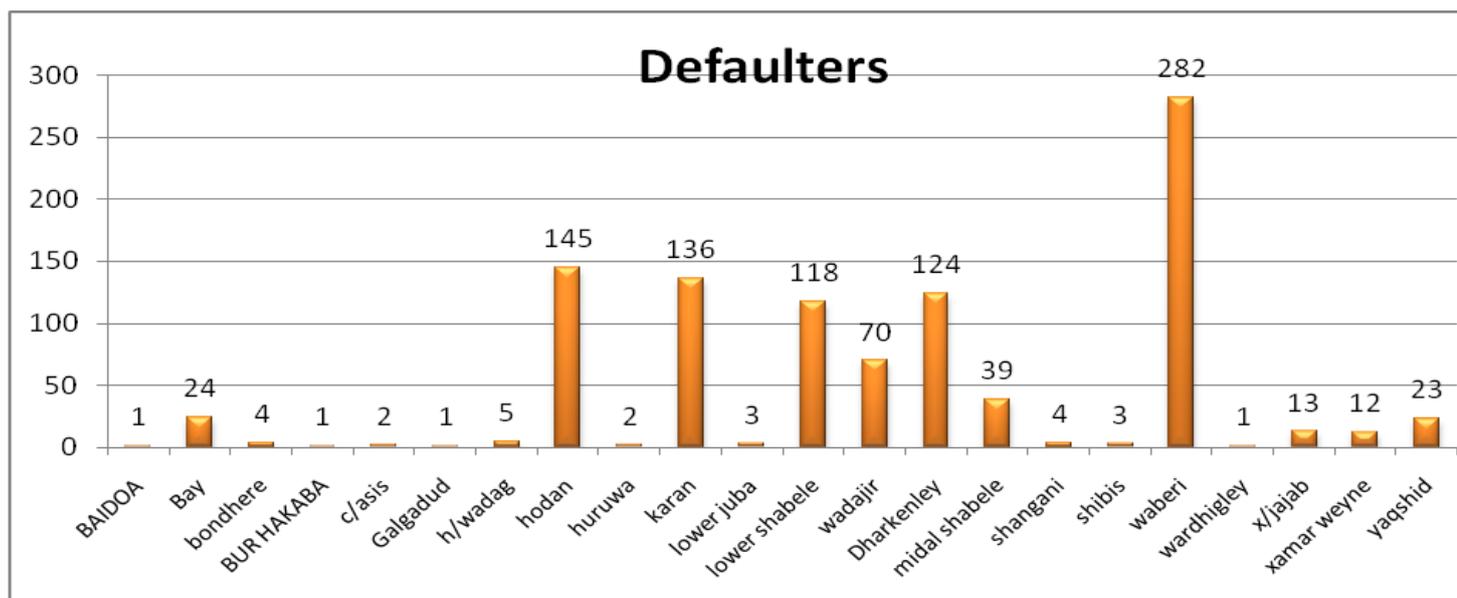
In February a sharp increase in Hodan was observed; from the discussions with the program staff, there was movement by the agropastrolists to the farms. This was triggered by the expectation of short rains, however there was failure and people immediately came back to Hodan. Seasonal movement of population thus is a key factor in determining the defaulter rates; the planting season increseases the defaulter rates.

In November, there was increase in defaulter rates especially in Hodan and Waberi. This period was presented with alot of relocation of IDPs to their homes, most NGOs embarked on this activityby offering tranport to the IDPs. Some of the beneficiaries in program therefore prefered moving while the relocation plan was available causng the number to go up.

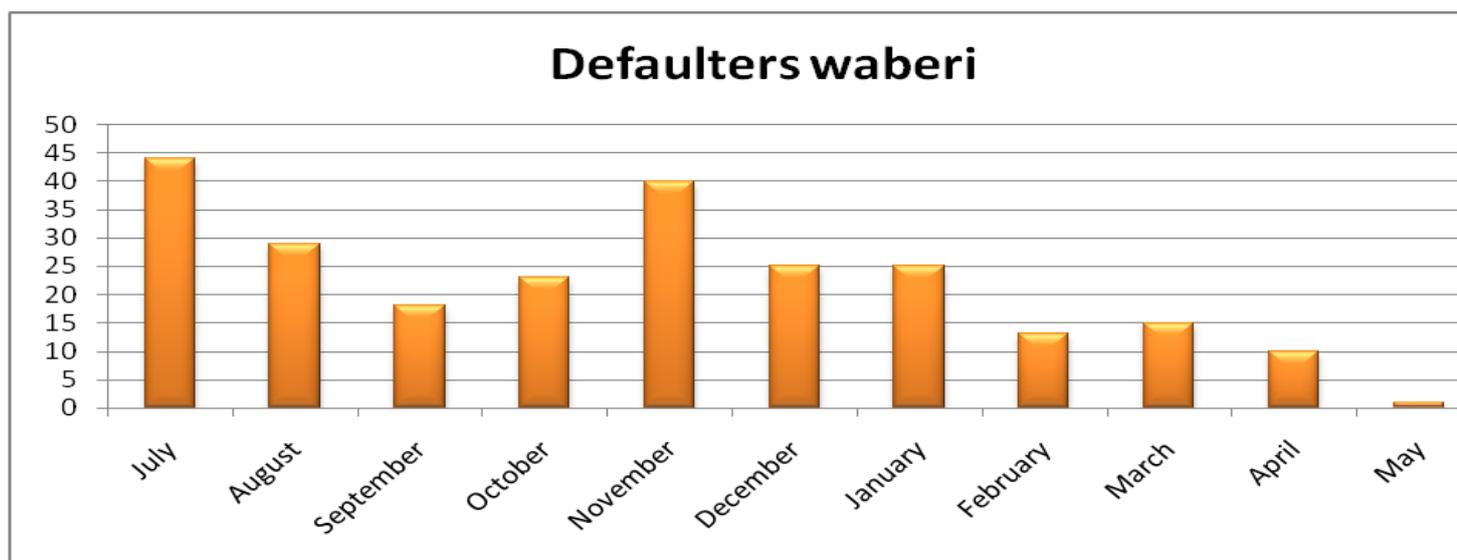
The table below show a summary of the reasons for defaulting from various sites. This was generated through discussions with the programme team.

District	Where the beneficiaries go for OTP	Reason for defaulting
Hodan	Hodan	Insecurity, population movements and competition
Karan	Forlanini	Insecurity
Lower shabelle	Hodan	Population movement
Wadajir	Hodan	competition
Dharkenley	Kahda+Hodan	Insecurity, Roadblocks (Access)
Waberi	Waberi+ Hodan	Relocation and competition

Defaulters per district



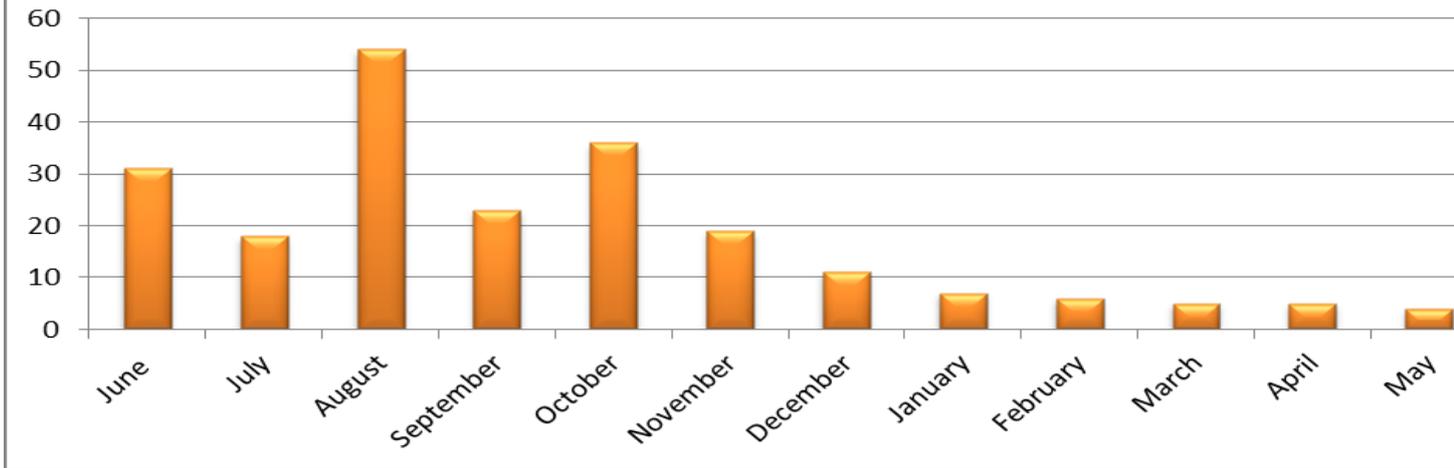
Most defaulters are beneficiaries originating from Waberi, followed by Hodan district. A further investigation showed the specific months that defaulters were high; this enabled to have linkage of the numbers to the causal reason.



July- There was introduction of food for work targeting Women by another agency. This explains why the defaulter rates went up as most mothers preferred getting the whole ration given in FFW which can feed the whole family, as compared to the OTP PPN ration that caters only for the sick child.

November- Relocation of IDPs started in Waberi and most people opted to take advantage of the provision than to stay until the children are cured.

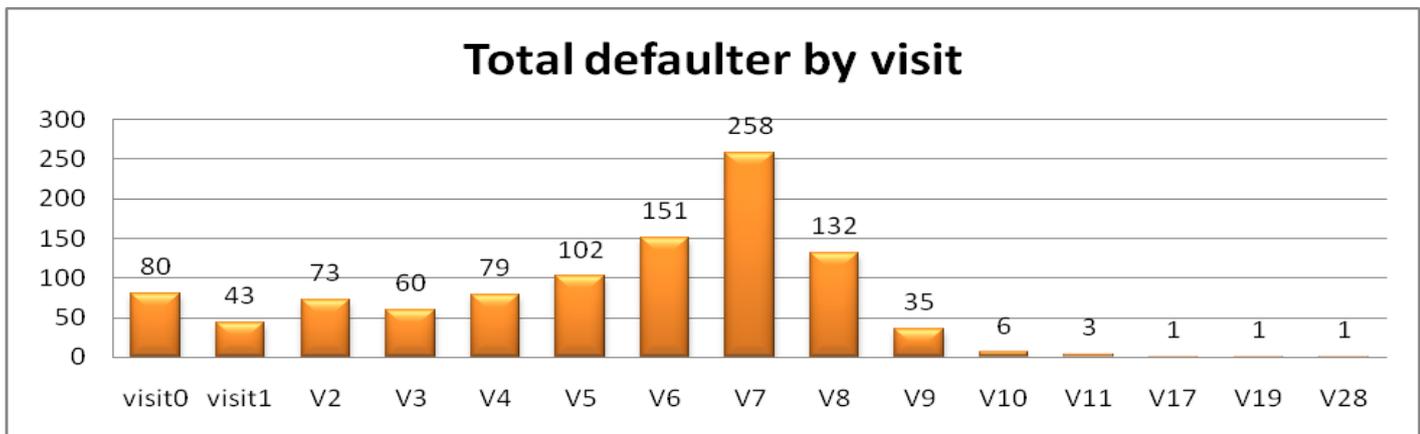
Defaulters forlanini by Month



August- A period where there was a huge fight between government and Alshabab.

June - July- Due to roadblocks, beneficiaries used a very long way to reach the centres (many roads were blocked due to insecurity), this meant that it took a long time to travel and get the nut services; this caused some beneficiaries to give up.

Defaulters by Visit



The general defaulters by visit shows a huge percentage of defaulting happening from visit 5- visit 8. At visit 5- 8 there is a possibility that the child has improved and the mothers therefore tend to pick up other chores they had left in order to attend to the children. This shows there are barriers to accessing the centres and caretakers can sacrifice to attend only when they feel their children are in danger.

Pipeline break

RUTF stock outs have been known to influence defaulting. It was necessary to look into the pipeline breaks to see if it affected the defaulting trends at any one point.

Protection ration.	Pipeline RUTF y/n	Pipeline break PR	OTP affected	
June	n			
July	n			
Aug	n			
sep	n			
Oct	n			
Nov	n			
December week 1	n	N		Rice wheat flour and local beans(all from Mogadishu)
week 2	n	N		
week 3	n	N		
week 4	n	N		
January week 1	n	N		All
week 2	n	y	All	
week 3	n	y	All	
week 4	n	y	All	
February week 1	n	N		Only Rice oil and beans
week 2	n	N		
week 3	n	N		
week 4	n	N		
March week 1	n	N		STARTED DISTRIBUTION FROM ACF FLOUR
week 2	n	N		
Mar-03	n	N		
Mar-04	n	N		
April week 1	n	N		used maize and lentils and oil from mandera
week 2	n	N		
week 3	n	N		
week 4	n	N		
May week 1	n	N		Rice, local beans and oil
week 2	n	N		
week 3	n	N		
week 4	n	N		
June week 1	n	N		Rice only
week 2	n	y	All	
week 3	n	y	All	
week 4	n	y	All	

During the one year period being investigated there were no pipeline breaks for RUTF in the periods where there were breaks for protection ration.

The protection ration pipeline break in January for 3 weeks caused an increase in defaulters in February as indicated in the general defaulter trends per month. This confirms that the protection ration has a pulling effect and that when removed this is felt.

The pipeline breaks for protection ration affected all OTP equally.

HYPOTHESIS

After investigations through program data analysis (i.e. admissions, exits, discussions on events surrounding the program and context analysis in terms of security, administration, accessibility, population movement and other factors) the following hypothesis was reached after categorizing the area of study into high coverage areas and low coverage area with reasons for each decision.

Centre	High	Low	Reasons
Hodan	√		<ul style="list-style-type: none"> - Presence of Mobile team - Access is good- there is available transport. - Presence of MCH
Forlanini	√		<ul style="list-style-type: none"> - Site is well known - The site was rpreviously a hospital - Availability of EPI point
Kahda		√	<ul style="list-style-type: none"> - Temporary closure - OTP centre located in a remote area - Insecurity
Waberi	√		<ul style="list-style-type: none"> - Secure - Presence of mobile team - Site close to the catchment population

STAGE 2: CONFIRMATION OF HYPOTHESIS

The first stage process came up with a hypothesis. Stage two involved testing of the hypothesis to ascertain the real situation on the ground.

From each of the 4 districts that ACF targets, a sub section of each district was randomly selected. For each district the names of each sub-area was written on a piece of paper and one was picked randomly, the picked subarea was identified and marked for data collection as a representative of the entire district. The process was repeated for each district. The following table shows the result of the random selection.

District	Subdistrict
Waberi-	Oktobar
Hodan-	Taleh
Dharkenley-	Dhegax tur
Abdul Aziz-	Jeneral Nero

Training and data collection

15 staff were trained on the objectives of the assessment, the tools to be used in the survey and the data to be collected.

Data collection was done for 4 days, each randomly selected subdistrict being targeted for a full day screening. The screening targeted to get

- All the SAM children in the area (4 districts),
- SAM children admitted in all OTP programs i.e. both ACF and other agencies,
- Recovering SAM cases
- SAM cases not admitted in the programs.

To classify coverage to either low or high , a decision rule (***d* value**) was decided on; this is the threshold used to determine whether the coverage was high or low .

The ***d*** value when using 50% is simply the number of SAMcases found (n) divided by 2, and the result is rounded down.

For each district the ***d*** value was calculated separately and rounded down. The ***d*** value was then compared to the number of SAM cases found in the program in each district, if the number of SAM admitted was found to be higher than the ***d*** value, the area was classified as a high coverage and vice versa.

Combined active and adaptive house to house case finding methodology was used to ensure exhaustive coverage of targeted areas.

The tables below shows the findings and classifications.

Small area findings

Findings for the entire area (all SAM cases for both ACF and other agencies)

District	Theisis	Total SAM (in and out of program)	SAM cases in the program	SAM cases found not in the program	Recovering non SAM in the program	D value	D value (round down)	differe nce	Coverage classification
Hodan	High	245	139	106	104	122.5	122	17	>50%
Waberi	high	224	131	93	78	112	112	19	>50%
Dharkenley (kahda)	low	166	119	47	73	83	83	36	>50%
Abdul Aziz (forlanini)	high	164	94	70	65	82	82	12	>50%

Finding for Entire Area (exclusively ACF beneficiaries)

District	Theisis	Total SAM (in and out of program)	SAM cases in the program (ACF)	SAM cases found not in the program	Recovering non SAM in the program	D value	D value (round down)	differen ce	Coverage classification
Hodan	High	245	95	106	104	122.5	122	-27	<50%
Waberi	high	224	81	93	78	112	112	-31	<50%
Dharkenley (kahda)	low	166	76	47	73	83	83	-7	<50%
Abdul Aziz (forlanini)	high	164	60	70	65	82	82	-22	<50%

Looking at the data above and analysis, the hypothesis was not proved since kahda is a high coverage area like the other three.

Coverage for ACF alone was <50% percent for all the four districts. This therefore concludes that if there is high coverage, it is as a result of work done by both ACF and other organisations, rather than just ACF.

STAGE 3

The objective of stage 3 was to provide an estimate of overall programme coverage; because of the massive sample size collected, we were able to estimate coverage directly without using Bayesian methods. This was because we had a spatially representative sample (i.e. samples collected equally from all four programme areas)

The calculation was done for all the data collected (coverage for all the agencies) and later coverage for ACF separately.

ACF coverage

This was done by dividing the number of cases in the programme(**c**) by the total number of SAM cases found (**n**) i.e

$$\left(\frac{c}{n}\right)$$

Based on the data collected:

$$\left(\frac{312}{800}\right) \times 100 = 39.0 \text{ C.I 95\% (35.7 – 42.3)}$$

This is the coverage estimation for the four areas.

Combined coverage (ACF plus other agencies)

The number of cases in all the programs was divided by the total number of SAM cases found.

Based on the data collected :

$$\left(\frac{484}{800}\right) \times 100 = 60.5 \text{ C.I 95\% (56.9 – 63.9)}$$

This is the coverage estimation for all the agencies working in the four districts targeted for the assesment.

CONCLUSIONS

The 39% CI. 95% (35.7-42.3) coverage by ACF clearly indicates there is still a huge percentage of SAM cases not yet reached. The figure falls short of the 70% coverage target set in the sphere standards. It is of key importance to note that ACF contributes the higher percentage of coverage out of the total coverage of 60.5% CI. 95% (56.9 - 63.9).

- Discussions and admission analysis showed that ACF centres are much preferred by beneficiaries. The admission of beneficiaries whose origin is far from the ACF centres compared to other centres close to them is a prove. ACF is known to offer quality and holistic services .
- Although a number of factors contributing to low admissions and high defaulter rates were identified, some are beyond what can be resolved by one organization. However some factors are internal and thus can be reinforced and others can be initiated.
- Additional services offered by ACF are key contributing factors to high admissions and low defaulter rates. The MCH, protection ration and Epi activities seemed to have a pulling effect for mothers and children.

RECOMMENDATIONS

- There is urgent need to develop a strong community component. ACF has not had a strong community component and therefore not able to reach a larger percentage of SAM cases. The component is to play a major role in ensuring the community is fully ware, participates and owns program. This strategy could help in accessing the large percentage not yet covered.
- Introduction of protection ration saw increase in the admissions. Apart from improving the household food security , protection ration had a pulling effect. There is need to seriously consider implementing protection ration as a way of improving the household food security. The program however need to be approached with a guideline to ensure the community understands the role of the program to avoid drop outs whenever the protection ration program ends.
- A deep analysis of admissions and beneficiary database showed a large number of OTP beneficiaries coming from district where ACF does not target. The largest number of beneficiaries came from Karan which is not one of the districts ACF operates in. These beneficiaries are seeking quality services theefore, with the huge numbers originating from Karan, ACF needs to consider expanding the nutrition services in Karan.
- Stage one was done using ACF data alone. It would be good to have a coordinated SQUEAC Analysis in future to involve all partner NGOs working in the area of operation.

