LOCATION: GAROWE IDP CAMP, PUTLAND, SOMALIA
DATE: JUNE 2013
NAME: SANJAY KUMAR DAS
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- Garowe IDP community for allowing the investigation to be carried out on their territory
- Special thanks go to the local authority, parents, Community Nutrition Volunteers (CNV), drivers and community guides for their valuable information and time.
- The entire assessment team for their high level of commitment and cooperation in all stages of the training and investigation process.
ACRONYMS

ARI: Acute Respiratory Infection
CDR: Crude Death Rate
CI: Credibility Interval
CNV: Community Nutrition Volunteers
CMAM: Community Based Management of Acute Malnutrition
CM: Community Mobilizers
CMN: Coverage Monitoring Network
DNA: Did Not Attend
ECHO: European Commission’s Humanitarian Office
FGD: Focus Group Discussion
FSNAU: Food Security and Nutrition Analysis Unit
GAM: Global Acute Malnutrition
IDP: Internally Displaced Population
IYCF: Infant and Young Child Feeding
KII: Key Informant Interview
MAM: Moderate Acute Malnutrition
MOH: Ministry of Health
MUAC: Mid-Upper Arm Circumference
OTP: Outpatient Therapeutic Programme
PLW: Pregnant and Lactating Woman
SAM: Severe Acute Malnutrition
SC: Stabilization Centre
SCI: Save the Children International
SQUEAC: Semi Quantitative Evaluation of Access and Coverage
TBA: Traditional Birth Attendants
TSFP: Targeted Supplementary Feeding Program
U5MR: Under Five Mortality Rate
UN: United Nation
UNICEF: United Nations Children’s Fund
WHO: World Health Organization
EXECUTIVE SUMMARY

Garowe is located in the Nugaal province in state of Puntland in Somalia and is the administrative capital of the Puntland hosting the regional parliament, the presidential palace and government ministries. Garowe is semi-arid, characterized by tropical desert with hot and dry climate. Garowe has an estimated total population of 67,227 inhabitants. Situation of malnutrition is serious in Garowe IDP camp as per FSNAU report. Save the Children has been working in Puntland since 2005, implementing long and short-term programmes for emergency recovery in food security, livelihoods and emergency preparedness. There are 5 OTPs running through government health system with the support of SCI since May 2012.

The objectives of assessment were to determine the coverage of OTP program in Garowe IDP camp, identify barriers and boosters to coverage and build the capacity of SCI staffs so that coverage assessment can be done regularly as part of program monitoring system. SQUEAC methodology was used for coverage assessment and active-adaptive case finding technique was used to identify SAM cases in the community. EPI 3 method was used to test hypothesis regarding awareness about CMAM program.

Findings from the assessment indicated point coverage of 85% (CI 78%-90.1%). This estimate lies below the Sphere standard of 90% in IDP camp program areas. Though coverage is slightly below in comparison to SPHERE minimum standard, performance of the program was better considering challenging environment. Major factors influencing positively to increase coverage were strong community mobilization mainly for case finding and awareness raising, good linkage with other program like immunization campaign, IYCF, well trained staffs and volunteers and quarterly mass screening campaign. The major barriers to coverage were poor health seeking behaviour in some area, busy care takers, inadequate counselling at the time of admission and inadequate follow up of defaulter. Admission was high in the beginning of the program and after six months it had become almost stable. Most of the children were admitted by MUAC (59%) followed by WFH 40 percent. Majority of SAM children (79%) were referred by volunteers while remaining 21 percent had been admitted by self-referrals. Median MUAC on admission was 11 cm which indicates early case finding and admission in the program. Though median length of stay for cured child was 5 weeks some child had stayed for more than 12 weeks. Some children were also defaulted early and main reasons for defaulter were frequent migration and busy care takers.
Program should focus on community sensitisation especially to fathers, traditional healers as some people are still going to traditional healer for treatment of SAM cases. Fathers are not willing to take their SAM children to OTP. There was frequent relapse so, dissemination of context specific IYCF key messages should be given priority and family of SAM children should be linked with food security interventions.
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INTRODUCTION

1.1 CONTEXT

Garowe is located in the Nugaal province in state of Puntland of Somalia and is the third largest city in Puntland after Bosaso and Galkacyo. Garowe is the administrative capital of the Puntland hosting the regional parliament, the presidential palace and government ministries. Following the outbreak of the civil war in 1991, a home-grown constitutional conference was held in Garowe in 1998 over a period of three months attended by the area’s political elite, traditional elders (Issims), members of the business community, intellectuals and other civil society representatives, the autonomous Puntland State of Somalia was subsequently officially established so as to deliver services to the population, offer security, facilitate trade and interact with both domestic and international partners. Garowe is situated in north-eastern Somalia, in the heart of the Puntland region. Nearby settlements include to the east Gillab (4.8 nm), to the northeast Qalqalooc (15.3 nm), to the north Libaax Seexay (2.5 nm), to the northeast Geida Debabo (12.2), to the west Bixin (5.9 nm), to the southwest Lugo (6.0 nm), to the south Salaxley (5.3 nm) and to the southeast War Weytan (9.7 nm).

Garowe is semi-arid, characterized by tropical desert with hot and dry climate. Coldest average temperatures occur from November to February, when thermometer readings range from 23 to 25 °C (73 to 77 °F). The weather slowly heats up in the spring, as the April rainy season begins. Average temperatures later reach a maximum of around 41 °C over the summer period. Rainfall in the region is sparse and variable, with no single area receiving more than 400 mm (15.7 in) of rain annually. There are four main seasons around which pastoral and agricultural life revolve namely: Jilal – from January to March; the harshest dry season of the year; Gu – from April to June; the main rainy season; Xagaa – from July to September; the second dry season and Deyr – from October to December; the shorter and less reliable rainy season.

Somalia has one of the largest internally displaced populations (IDPs) in the world, with 1.46 million IDPs, as well as, over half a million Somali asylum seekers and refugees living in the region. Most IDPs transit through Garowe town prior to reaching the town of Bosaso; however there are still a large number of IDPs who remain in Garowe. The displaced population originates mainly from Banadir region specifically Mogadishu, Bay, Bakool and...
SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUNTLAND, SOMALIA
to a lesser extent other regions of south and central Somalia. There are also IDPs who have
been displaced from within Puntland, primarily as a result of the conflict in the disputed
areas of Sool and Sanaag regions, as well as, due to drought and the consequent loss of
livelihoods. IDPs in Garowe, many of whom have been displaced for over 20 years, live in a
precarious situation and many depend on humanitarian assistance. There are various
partners working for the Garowe IDP camp like SCI for nutrition, World Vision supporting
for shelter, International Organization for migration (IOM) is supporting for primary health
care services (PHC) in coordination with local government authorities\(^1\).

Garowe has an estimated total population of 67,227\(^2\) inhabitants. Just like the other major
towns of Puntland, Garowe hosts a large population of protracted and new internally
displaced persons (IDPs) fleeing from conflict, economic and livelihood crisis in the central
and southern parts of Somalia as well as those in transit to overseas from Ethiopia\(^3\). The
IDPs are located in the town peripheries with recent efforts by the Government to move all
of them to common sites. New immigrants are reported to mainly settle in the Shabelle and
Waaberi IDP sites. Garowe is served by one major medical institution, Garowe Regional
Hospital, in addition to three maternal and child health clinics and other smaller clinics.

Food security and Nutrition Analysis Unit (FSNAU) conducted a nutrition assessment in
Garowe in December 2012 and Global Acute Malnutrition (GAM) was found 14.4percent
(11.4-17.8\%) and Severe Acute Malnutrition (SAM) rate 3.7percent (2.6-5.3\%). As per
WHO classification, this level of malnutrition is classified as serious situation of
malnutrition. Stunting was found 31.1percent (26.0-36.7\%) and underweight 25.9percent
(21.9-30.2\%) in Garowe IDP camps. The crude death rate (CDR) and under five mortality
rate (U5DR) of 0.19percent (0.08-0.43\%) and 0.56percent (0.21 -1.46\%), both indicate
Acceptable levels among the Garowe IDPs according to UNICEF (2005) classification\(^4\).
Malnutrition amongst the IDPs in the area is attributed to various causes to include lack of
an established livelihood support system for IDPs, limited access to basic needs and
services such as food, clothing, shelter, water, sanitation, health and housing, sub-optimal
infant and young child feeding (IYCF) practices with exclusive breastfeeding (0-5 months)
19.5percent, continued breast feeding up to 24 months was found 13.3percent and
minimum food diversity (6-23 months) 47.3percent\(^5\).

\(^1\) Humanitarian gaps analysis IDP settlement in Garowe (puntland) March – April 2011
\(^2\) Save the Children program proposal Jan 2013
\(^3\) FSNAU Nutrition update Dec 2012
\(^4\) Nutrition Analysis Post Deyr, FSNAU 2012/2013
\(^5\) SCI Garowe IYCF assessment report, Jan 2013
1.2 CMAM PROGRAMME IN GAROWE IDP

Save the Children has been working in Puntland since 2005, implementing long and short-term programmes like emergency recovery in food security and livelihoods and emergency preparedness. In August 2009, Save the Children undertook emergency assessments in urban areas of Puntland, focusing on nutrition and livelihoods and in April 2010, undertook a 10 month emergency nutrition project supported by ECHO, managing both severe and moderate malnutrition in 14 IDP camps of Bosasso and Garowe.

Currently in Garowe IDP camp, Save the Children in collaboration with MOH is implementing three components of CMAM model that comprises community mobilisation (CM), management of severe acute malnutrition (SAM) with complications in the stabilization centre (SC) and SAM without complications through the OTP. Targeted supplementary feeding program (TSFP) for moderate acute malnutrition (MAM) children and pregnant and lactating women (PLW) has been temporarily suspended since April 2013 up to the time of this assessment due to scarcity of supplementary food ration. The SC is integrated within the district hospital while OTP is run by mobile nutrition team in five sites of IDP camps namely Riiga, Tsunami, Siiliga, Waaberi and Shabelle. Mobile nutrition team comprises:

<table>
<thead>
<tr>
<th>Staffs</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>2</td>
</tr>
<tr>
<td>Measurer</td>
<td>2</td>
</tr>
<tr>
<td>Registration Person</td>
<td>1</td>
</tr>
<tr>
<td>Case finder</td>
<td>4</td>
</tr>
</tbody>
</table>

In addition to this, there are also 10 community nutrition volunteers for regular screening and case finding and 3 Infant and Young Child Feeding (IYCF) counsellors to ensure better infant and young child feeding practices in the IDP camps supported by SCI. These staffs are also supported by OTP supervisor and partially by nutrition project officer and nutrition program manager.

The OTP program targets children 6-59 months of age. The admission criteria include MUAC <115mm, Z-scores <-3SD and bilateral pitting oedema. The OTP program is
SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUTLAND, SOMALIA

conducted once a week in each five sites but screening of suspected malnourished children is done daily by community volunteers in their catchment areas. The challenges facing the program have been inadequate capacity of the community nutrition volunteers particularly in regard to provision of adequate health and nutrition education; follow up of defaulter, lack of adequate shelters for beneficiaries in some of the sites and busy care takers.

1. OBJECTIVES

2.1 GENERAL OBJECTIVE

- To conduct coverage assessment of out-patient therapeutic program (OTP) in Garowe IDP camp of Putland, Somalia

2.2 SPECIFIC OBJECTIVES

- To determine coverage of OTP in IDP camp of Garowe
- To identify factors influencing positively and negatively to OTP coverage in IDP camp of Garowe
- To develop feasible recommendations to improve the coverage and outcome of CMAM
- To build capacity of SCI nutrition team on SQUEAC assessment methodology

2.3 EXPECTED OUTPUT

- SQUEAC assessment report of Garowe IDP camp
- SCI nutrition team able to conduct SQUEAC assessment in other project areas

2. METHODOLOGY

3.1 SEMI-QUANTITATIVE EVALUATION OF ACCESS AND COVERAGE (SQUEAC)

The SQUEAC methodology was used applying the three principles of the methodology namely iteration, triangulation and sampling to redundancy.

Stage 1: Identification of potential areas with high and low coverage was done using routine program data. In this stage, triangulation of data was done by various sources and methods as highlighted below.
SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUTLAND, SOMALIA

- **Sources of data:**
  - Quantitative data was obtained by analysing OTP cards and CMAM data base.
  - Qualitative information was obtained from caretakers (under treatment and defaulted children), OTP staffs, IDP committee, religious leaders, village leaders, teachers, group of men, group of women, traditional healers, TBA, community nutrition volunteers (CNVs), program staffs and community members.

- **Methods:**
  - Focus group discussions (FGD)
  - Key informant interviews (KII)
  - Simple structured interviews and
  - Observation

**Stage 2:** Hypothesis generated and tested using small study and small area surveys.

- **Methods:**
  - Active-Adaptive Case Finding
  - EPI 3 methods

**Stage 3:** Wide area survey conducted to determine overall coverage

- **Methods:**
  - Active-Adaptive Case Finding

*Details of methodologies are in Annex*

The trainees were actively participated in every stage and learning was taking place by action.

3.2 **DURATION OF ASSESSMENT**

The SQUEAC assessment had undertaken from 10-23 June 2013. There were only 5 OTP sites and 8 teams each team having two members. All OTP sites were close from the Garowe town and so duration of assessment was comparatively less.

3.3. **PARTICIPANTS:**

There were 19 persons actively participated during whole SQUEAC investigation process. Two were from country office, 5 from Garowe field office, 8 from Hiran field office and four from Bosaso field office. Participants list is in annex 2.
3. RESULTS

4.1 STAGE ONE

The main objective of this stage was to identify potential differences in coverage within IDP camps (high versus low coverage areas) and reasons for coverage success/failure using routine program data and qualitative data. Various routine program data was obtained from OTP cards and program registers. These included admission and defaulters trends, performance indicators like cure rate, defaulter rate, death rate, non-responder rate, MUAC on admission, MUAC on defaulter, length of stay for cured, length of stay for defaulter, admission criteria and referral.

4.1.1 QUANTITATIVE DATA

Routine program data from all 5 OTP sites offering services was available since the start of the program in May 2012 until May 2013. The data was satisfactory and records included detailed information as per OTP card for each case admitted to the CMAM program in OTP cards and monthly report.

4.1.1.1 PROGRAM PERFORMANCE INDICATOR

Program performance is measured by the program outcome data according to Sphere standards. Majority of the admitted cases were exited as cured with most defaulters experienced during the very initial phase in May, June and again slight increase in January.
SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUTLAND, SOMALIA

Figure 1: Program Performance Indicator Graph of Garowe IDP Camp, May 2012 – May 2013

Table 2: Comparison of Performance Indicators with SPHERE minimum Standard

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>Percentage</th>
<th>SPHERE Minimum Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cure Rate</td>
<td>89.1</td>
<td>&gt;75</td>
</tr>
<tr>
<td>Defaulter Rate</td>
<td>8.8</td>
<td>&lt;15</td>
</tr>
<tr>
<td>Death Rate</td>
<td>1.1</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Non-Responder Rate</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>

It is seen from above table that performance of the IDP camp is better. Major CMAM indicators namely cure rate, defaulter and death rate have achieved SPHERE minimum standards.

4.1.1.2 ADMISSION, DISEASE AND FOOD INSECURITY CALENDER

As seen in the graph below admission was high in the beginning of the program as there was intensive screening and case load was high due to accumulation of both prevalent and incidence cases as there was not any nutrition intervention before May 2012. In the remaining period, admissions were almost stable with slight increase in January February which might be due to high food insecurity during that period. It is also seen that in April,
admission trend had increased which might be due to high incidence of childhood illness like diarrhoea, ARI and fever.

**Figure 3:** Admission Trend Compared with Disease & Food insecurity Calendar, May 2012 – May 2013

4.1.1.3 ADMISSION CRITERIA
**Figure 4: MUAC versus W/H Z-Score admissions**

The figure above shows that majority (59%) of children were admitted by MUAC followed by weight for height 40 percent and bilateral pitting oedema only one percent. There were very few children admitted with oedema during the entire length of program. The reason for less case of oedema was discussed with the team and it was concluded that prevalent of bilateral pitting oedema is low in Somalia.

### 4.1.1.4 MUAC ON ADMISSION
The graphical presentation above shows that majority of children were admitted in early stage of malnutrition. Only 27.2% percent children were admitted with MUAC below 110 mm. The median MUAC on admission was found 110 mm. This is an indicator of good community mobilization for early case finding and admission.

**4.1.1.5 LENGTH OF STAY FOR CURED CHILDREN**

It is seen from the below chart that median length of stay for cured children was 5 weeks. Majority of the children were cured by 8 weeks which might be due to early admission and good community mobilization. But at the same time, it is also seen that some children were discharged too early like in 1-2 weeks and as per discussion with the team it was concluded that these were wrong admission in the beginning of the program and discharged as cured after realization of wrong admission.
4.1.1.6 SOURCES OF REFERRAL

It is seen from the below chart that majority of SAM children were referred by community nutrition volunteers while 21 percent care takers had brought their children to OTP themselves that was self-referral.
Figure 7: Sources of Referral

4.1.1.7 OTP-WISE ADMISSION VS Defaulter
Overall defaulter in Garowe IDP camp was less than SPHERE minimum standard of 15 percent. It is seen from the above graph that some OTP like Tsunami and Waabari OTP had comparatively more defaulter while Riiga had least defaulter.

**4.1.1.8 REASONS FOR DEFAULTER**
Survey team had visited 14 caretakers of defaulter children and it was found that majority of children were defaulted due to frequent migration and very few children were defaulted due to their perception of RUTF cause diarrhoea.

4.1.1.9 DEFaulTER AND LABOUR DEMAND TRENd
It is seen from above chart that defaulter was high in the beginning of the program and later it had decreased gradually. There was slight increase in defaulter at the time of high labour demand, migration and religious festivals.

4.1.1.10 MUAC AT THE TIME OF DEFAULTER

It is seen from the graph below that most of the children were defaulted with higher MUAC. Median MUAC at defaulter was 11 cm.

![Figure 11: MUAC at Defaulter](image)
SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUTLAND, SOMALIA

Figure 12: Length of Stay for Defaulted SAM Children

It is seen from above chart that most of the children were defaulted early and median length of stay for defaulter was 4 weeks. Many children defaulted in 1-2 weeks which was mainly due to inadequate counselling for follow up visit and RUTF feeding.

2.1.2 QUALITATIVE DATA

Qualitative data was collected through different methods and triangulated with different sources. The commonly used methods were focus group discussions, semi structured interviews and simple structured interviews with key informants in the community.

2.1.2.1 LOCAL TERM FOR MALNUTRITION:
- Marasmus: Lafolato, Caato, Tacbaam, Caloolweyne
- Kwashiokor: Cogobarrar

SYMPTOMS OF MALNUTRITION:
- Caat, liita, lafiyo, maqaar, taabcam, abaarey San, Barar nafa(qo Darang barar xanwmsan (Sick child with Oedema)
- Malil (Severe),
- Muwaad (very weak),
2.1.2.2 KEY ACTORS IN THE COMMUNITY:

Table 3: key actors of Garowe IDP camp

<table>
<thead>
<tr>
<th>Village leaders</th>
<th>Madarsa teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Birth Attendants (TBAs)</td>
<td>Religious leader</td>
</tr>
<tr>
<td>Traditional healers</td>
<td>Grand mothers</td>
</tr>
<tr>
<td>Village/IDP committee</td>
<td>Community Health Workers</td>
</tr>
<tr>
<td>Community Nutrition Volunteers (CNVs)</td>
<td>Group of Men</td>
</tr>
<tr>
<td>Group of Women</td>
<td>Sheikha</td>
</tr>
<tr>
<td>OTP staffs</td>
<td>Care takers of beneficiaries</td>
</tr>
</tbody>
</table>

Qualitative data was collected from above mentioned key actors by using different qualitative data collection methods from different catchment areas. Data was further organized using the BBQ (Boosters, Barriers and Questions) approach which uses three panes to record the information as follows:
(1) Boosters,
(2) Barriers and
(3) Issues that need more investigation listed as questions.

2.1.2.3 DESCRIPTION OF BARRIERS

The table below includes description of some of the most pertinent barriers found in the community while gathering the qualitative data.

Table 4: Community barriers leading to non-attendance, dissatisfaction with CMAM services and defaulting

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing of RUTF</td>
<td>RUTF was accepted as biscuits in some communities and it was shared with other children. OTP staffs were collecting RUTF empty sachets before providing new RUTF packets. So, there was no problem of selling of RUTF in the community.</td>
</tr>
<tr>
<td>Inadequate explanation about the treatment</td>
<td>Beneficiary mothers often did not understand the treatment for their children; they were not sure about how often to come back for the RUTF supply or how to give it to their children. In the beginning of admission, some caretakers fed RUTF to SAM children by mixing in water which causes diarrhoea. Sometimes they were given different amounts of RUTF without telling how many to give to their children.</td>
</tr>
<tr>
<td>Inadequate awareness about malnutrition and CMAM services</td>
<td>Some community people were not aware of the causes of malnutrition and availability of CMAM services, its importance. They were not aware that OTP services are free. So, some caretakers were taking their SAM children to traditional healers and private pharmacy for treatment of malnutrition. Traditional practitioners were burning different part of body, incising fore head with blade, removing teeth for the treatment of malnutrition.</td>
</tr>
<tr>
<td>Do not attending the Program and defaulter</td>
<td>More defaulters were found in some OTPs. Reasons for not attending program and defaulter were competing activities like seasonal labour demand and household workload, caretaker sick, feels shy, ashamed and conflict between father-mother. This was also due to rejection of father to take their child to OTP as father feels ashamed. In some area, follow up of defaulted cases was not regular.</td>
</tr>
<tr>
<td>One OTP team works in two sites on the same day</td>
<td>Short working hours had been mentioned by one respondent of Waabari OTP catchment area. Waabari IDP camp is big and so OTP team works in 2 sites on the same day to have better coverage but it affects some caretakers as they go for labour work and OTP service was not available at the time of their return from work.</td>
</tr>
<tr>
<td>No Furniture in waiting area</td>
<td>Some respondent had said that there were not table or chair for caretakers to sit while waiting for treatment. Floor was wetted with water.</td>
</tr>
</tbody>
</table>

On the positive note, malnutrition was recognized as a health problem by majority in the community. OTP service was appreciated by caretakers as they could see their children’s improvement. Service quality was overall very satisfactory and there was no discrimination towards any malnourished children.

### 2.1.2.4 CONCEPT MAP
Boosters and barriers were interlinked with coverage which helped us to understand the strength of boosters and barriers for coverage and prioritise the action points to improve the coverage of program.

**Figure 13:** Concept Map used to analyse qualitative data

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**3. SMALL AREA SURVEY/STUDY**

In this stage, qualitative data gathered above was analysed, validated and then used to develop formal hypothesis. This was tested using quantitative techniques. Additionally, one in-depth question was developed to understand better potential factors affecting the coverage.

**3.1 HYPOTHESIS INFORMATION**
HYPOTHESIS 1

- More caregivers of young children (6-59 months) living in villages close (i.e. within 1km) to CMAM service delivery point are aware of the CMAM program (i.e. know the program exists; know that it treats malnourished children).

- Fewer caregivers of young children (6-59 months) living in villages far away to CMAM service delivery point (more than 1km) are aware of the CMAM program.

The EPI 3 sampling method was used to select five households from each of the selected villages.

To test this hypothesis 4 OTPs were randomly sampled and 8 villages were selected depending on their distance to OTP sites (4 far away and 4 close by). The summary data was analysed using the simplified LQAS testing procedure with overall good awareness defined as more than 90% of caregivers of young children being aware of the program.

Coverage standard 90%
Decision rule 18
Total number interviewed 20

<table>
<thead>
<tr>
<th>Close by villages (&lt;1km)</th>
<th>Far away villages (&gt;1km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Shabelle A, Marka, Waaber11, Hormuud)</td>
<td>(Shabelle B, Benadir, Horseed, Hodan)</td>
</tr>
<tr>
<td>Cases aware of the program</td>
<td>Cases aware of the program</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Cases not aware of the program</td>
<td>Cases not aware of the program</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>More</strong> than 18 respondents were aware of the program in the nearby villages and therefore this part of hypothesis was confirmed.**</td>
<td><strong>In the far away villages more than 90% (19 out of 20) were aware of the program and therefore this part of hypothesis was not confirmed.</strong></td>
</tr>
</tbody>
</table>

Given the above results, it was concluded that in both far away and nearby villages program awareness is good and so distance is not a factor affecting program awareness in Garowe IDP camp.

HYPOTHESIS 2

Data on admissions and qualitative information indicated a possible relationship between distance and the number of admissions. We wanted to test this hypothesis to see whether distance indeed affected the coverage and if in close by villages the coverage of SAM cases would be higher than in the far away villages. To test this hypothesis another 4 OTPs were
randomly sampled and 8 villages were selected depending on their distance to OTP sites (4 far away and 4 close by).

Table 6: Analysis of finding for hypothesis testing of coverage estimation

<table>
<thead>
<tr>
<th>Close by villages (&lt;1km) (Shabelle A, Marka, Waaber1, Hormuud)</th>
<th>Far away villages (&gt;1km) (Shabelle B, Benadir, Horseed, Hodan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAM cases in the program</td>
<td>SAM cases in the program</td>
</tr>
<tr>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>SAM cases not in the program</td>
<td>SAM cases not in the program</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total cases found</td>
<td>Total cases found</td>
</tr>
<tr>
<td>24</td>
<td>20</td>
</tr>
</tbody>
</table>

Coverage standard 90%

<table>
<thead>
<tr>
<th>Decision rule - close by villages</th>
<th>Decision rule - far away villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of 24 children more than 21 need to be covered by the program for confirmation.</td>
<td>Out of 20 children, more than 2 needs to be uncovered (out of the program) for confirmation.</td>
</tr>
<tr>
<td>As 19 are not &gt; 21; this part of hypothesis was not confirmed. Therefore close by villages do not necessarily have higher coverage.</td>
<td>As 4 are &gt; 2; this part of hypothesis was confirmed.</td>
</tr>
</tbody>
</table>

Given the above results, it was concluded that coverage is lower both in far away and nearby villages. So, distance is not a factor for poor coverage in Garowe IDP camp.

4. WIDE AREA SURVEY

4.1 DEVELOPING PRIOR

The prior was developed from a mode of weighted boosters and barriers

Boosters and Barriers were valued according to the weight they contributed to coverage. Participants provided weight with score ranging between 0 and 6 to each barriers and boosters on the basis of their importance for coverage. Average of those weights was calculated which are shown in the table below. Thereafter, the boosters were added to the
minimum coverage (0%) while the barriers were deducted from the maximum coverage (100%) and then the mean value of the two calculated.

**Table 6: Weighted Boosters and Barriers**

<table>
<thead>
<tr>
<th>BOOSTERS</th>
<th>VALUES</th>
<th>BARRIERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No stigma</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Traditional healers arrested by authorities so no traditional healer in the community</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Good referral system (Volunteer-OTP-SC)</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Good understanding of malnutrition</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Good Perception Of CMAM program</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Receive adequate amount of RUTF and routine medicine</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Good recording system</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>OTP staffs are trained</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Less SAM children in the community due to less prevalence</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>All admitted SAM children receives Hygiene kits from OTP</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>OTP nearby</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Monthly house to house screening</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Good community linkage with the nutrition program</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Good community mobilization</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>81</strong></td>
<td><strong>22</strong></td>
</tr>
<tr>
<td><strong>Booster values ADDED to minimum coverage (0%)</strong></td>
<td><strong>81</strong></td>
<td><strong>78</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td><strong>79.5</strong></td>
</tr>
</tbody>
</table>

Before using a Bayesian Coverage Estimate Calculator to represent our prior a histogram prior was developed (by hand) and the team believed that the coverage could not be
below <59.5% percent as depicted by findings or higher than 99% percent since there were some barriers to coverage. Using Bayesian Coverage Calculator, the prior was set at 79.5% with alpha - 35 and beta - 9.5 corresponding to our histogram prior with uncertainty of ± about 20% as shown below.

Figure 13: Prior Distribution

4.2: METHODOLOGY FOR WIDE AREA SURVEY

4.2.1 SAMPLING

Since there was no reliable map for Garowe IDP camp, systematic stratified spatial sampling of village/settlement was done. A total of 9 villages were selected for the wide area survey out of sampling frame of 28 villages and all villages were visited. To match the strength of the prior, the teams were aiming to find approximately 43 children.

4.2.2 DATA COLLECTION AND ANALYSIS

The teams used active and adaptive case finding techniques to find all or nearly all SAM cases in the 9 selected villages to estimate the coverage and confirm the prior. MUAC and oedema of the possible SAM cases were checked and semi structured questionnaire-annexed to this report was administered to care takers of non-covered cases. Specific local definitions of SAM and aetiologies were used to ask community members to bring the survey team to possible SAM children. Identified SAM cases were categorized as
**SQUEAC INVESTIGATION IN IDP CAMP, GAROWE, PUTLAND, SOMALIA**

i) **SAM cases in the program**: Child with MUAC <115 mm or bilateral pitting oedema and in the OTP program

ii) **SAM cases not in program**: Child with MUAC <115 mm or bilateral pitting oedema and not in the OTP program

iii) **Recovering cases**: Child with MUAC ≥115 mm or no bilateral pitting oedema and in the program to attain discharge criteria

Table 7: Active-Adaptive Case Finding Results

<table>
<thead>
<tr>
<th>Sampled village</th>
<th>Recovering Cases</th>
<th>SAM cases in Program</th>
<th>SAM cases not in the program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waaberi</td>
<td>4</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Shabelle A</td>
<td>6</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>Tsunami</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Bilan</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Hormuud</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Hiran</td>
<td>3</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Muuse rootilev</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Marka</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Wabari 1</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>71</td>
<td>10</td>
</tr>
</tbody>
</table>

During the SQUEAC survey, 81 SAM cases as well as 20 recovering children were identified (making a total of 101 children). From the Bayesian coverage estimate calculator (Version 2.02), the posterior point coverage was determined 85 percent with credibility interval (CI 78.0% - 90.1%) as shown below; this estimate is slightly below SPHERE minimum standard of 90 percent in IDP camp program areas. These IDP camps are in Garowe for last 20-25 years and program has also covered some host communities. Actually likelihood coverage was found 87.6 percent but posterior was pushed little bit down by prior. The coverage is better in comparison to other countries/places of Africa even in IDP camp. This is mainly due to strong community network and quarterly mass screening campaign. Last mass screening campaign was conducted in first week of June 2013 just before start of SQUEAC assessment. This might have contributed for increased coverage. At the same time there were 2 volunteers in each OTP catchment areas and they are screening all children 6-59 months at least once a month and refer the children to OTP sites. It was also found that most of the identified SAM children who were not in the program were also screened by
community volunteer and referred to OTP but they do not attended the OTP as care takers were busy.

**Figure 14:** Posterior Coverage Estimate

Further investigation on the reasons why the malnourished children were not enrolled in the program was done during active adaptive case finding and the results are as follows;
Figure 15: Reasons for SAM cases NOT in the program, Garowe IDP camp

We can see very clearly from above chart that main cause for the SAM children caretakers not coming to OTP was high labour demand or busy care takers.
4. DISCUSSION

The SQUEAC assessment of Garowe IDP camp determined coverage 85 percent (CI 78.0%-90.1%). Although coverage is just below SPHERE minimum standard of IDP camps, program displayed some clear strength and good practices. The main reason for this level of coverage is strong community network and mobilization. There are 2 community nutrition volunteers in each OTP catchment areas and they are screening almost all 6-59 months children at least once a month in their catchment areas. They are also disseminating key messages of malnutrition and CMAM periodically through hand mike. OTP staffs have also controlled the misuse or selling of RUTF sachets at family level. In each follow up visits, OTP staffs collect empty RUTF sachets from the care takers and only on the basis of those care takers receive required number of RUTF. So, there is no chance of RUTF selling in market and so RUTF is fed to SAM children which might have contributed for acceptable median length of stay 5 weeks.

OTP program is implemented by local MOH authorities through mobile nutrition team (MNT) with the financial and technical support of Save the Children. There are 9 persons in MNT and they conduct OTP once a week in each 5 IDP camps. As OTP program is implemented through government health system, it has helped to link OTP program with other health and nutrition services like IYCF and immunization campaign. So, these IYCF counsellors and immunization personnel refer suspected SAM cases to nearby volunteers or OTP sites. This has also contributed for better coverage.

Quarterly mass screening is also planned in IDP camp and last screening campaign was done in first week of June 2013 that is just few weeks before SQUEAC assessment. During qualitative data collection, it was found that one traditional healer was arrested by local government authorities due to unhealthy traditional practices. This has discouraged other traditional healers to continue traditional practices and one traditional healer was saying that it is not good to treat malnourished children traditionally like by burning child’s body, removing teeth or cutting some parts of body during key informant interview. These factors might have played vital role for high level of coverage. Though number of barriers found during this SQUEAC assessment is more but it has come from very few sources so few weightage is given to barriers.

There was a SQUEAC assessment done in April 2012 in same IDP camp and point coverage was found 79 percent for OTP program. Action taken on the basis of this SQUEAC assessment finding might have contributed for the increase of current coverage to 85 percent.
5. RECOMMENDATIONS

These recommendations are made on the basis of observations in the community and findings from SQUEAC assessment.

- **Strengthen Community Mobilization:** It was found that still some people are going to traditional healers, private pharmacy for the treatment of SAM children and father does not allow taking their SAM children to OTP. It was also found that in some OTP like Tsunami and Wabaari, defaulter was high. So, Community mobilization activities should be strengthened to aware the community on causes of malnutrition, key messages of CMAM services and importance of follow up visits for growth and development of their children. All absent children should be followed up timely to reduce defaulter.

- **Reduce Sharing of RUTF:** It was found that RUTF was shared with other children in the community and it is also named locally as biscuits. It was also found that some SAM children were registered in two OTP sites and receiving RUTF from both places and sharing with other family members. So, it should be strongly communicated that RUTF is a medicine only for SAM children and should not be shared with other children as it is not a biscuits. Volunteers should be encouraged to monitor whether any children are double registered.

- **Disseminate Context Specific IYCF Key Message:** During discussion with the participants, it was found that SAM children are getting relapsed frequently. So, context specific IYCF counselling should be strengthened highlighting locally available nutritious foods and their appropriate use. Family of malnourished children should be linked with existing food security and livelihood interventions to ensure availability and accessibility to nutritious foods.

- **Comfortable waiting space for care takers:** The waiting floor was wetted with water and there were not any chairs/tables for care takers waiting for OTP services. This will discourage care takers to come for follow up visits. So, waiting area should be improved and made comfortable environment for SAM children and their care takers so that they will come for follow up visits regularly.

- **Accurate target population and appropriate use of resources:** Population figure of program catchment area was not consistent. During discussion with the program team it was found that beneficiary for IDP camp are estimated on the basis of total population of Garowe but services are provided only to IDP camp and still supply is not sufficient sometimes. So, it would be better to conduct a census of program catchment area and SMART nutrition survey. It will help to estimate the target population and better utilization of available resources.
### 6.1 ACTION PLAN

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Recommendation</th>
<th>Action to be taken</th>
<th>Who</th>
</tr>
</thead>
</table>
| 1    | RUTF is a medicine only for SAM children and should not be shared with other children | • Explain carers that RUTF is a medicine only for SAM child and not food or biscuits in each follow up visits  
• Make follow up/home visit to SAM children whose weights are not increasing or having stagnant weight to educate mother on RUTF feeding practices and explore the reason for not weight gain  
• Never tell RUTF as biscuits in the community | CM & CNV          |
| 2    | All absent children should be followed up timely to reduce defaulter            | • List the name of beneficiaries who are absent  
• Provide that list to CNV and ask them to do home visit/follow up and counsel them for follow up visits  
• Record contact address of the beneficiaries on the card for easy contact/find while missing  
• Explain carers about schedule and benefits of follow up visits and consequences of defaulting at the time of admission | CM & CNV          |
| 3    | Promotion of father’s knowledge on advantage of CMAM and their participation on CMAM related activities | • Conduct special sessions to aware fathers on CMAM and its importance  
• Encourage fathers to bring SAM children at OTP while mother is sick/busy | OTP Supervisor & CM |
| 4    | Strengthen community mobilization focusing on appropriate health seeking behaviour for malnourished children | • Promote traditional healer’s knowledge of malnutrition, its signs, symptoms by encouraging their participation in CMAM related activities  
• Encourage traditional healers to refer SAM children to OTP  
• Enhance knowledge of community about causes of malnutrition and appropriate health services  
• Disseminate CMAM key messages in the community through existing community networks and milking | CM & CNV          |
| 5    | Context specific IYCF counselling should be strengthen to reduce relapse of SAM children | • Provide IYCF key messages to all admitted SAM children during follow up visit by using pictorial chart  
• Aware mothers on locally available nutritious foods and cooking practices  
• Link SAM children family with locally available food security and livelihood related interventions | CNV, CM and supervisor |
<p>| 6    | Waiting area should be improved and                                           | • Build fixed gardens for SAM children in waiting areas | PO/NPM            |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 7 | Double registration of SAM children in the program should be discouraged | - Use permanent marker pens or bracelets  
- Encourage community volunteers to identify SAM children who are already admitted in the OTP program in other sites |
|   |   | CM & supervisor |
| 8 | Special focus should be given to care takers of SAM children who are working | - Conduct frequent home visits to convince working care takers to come for follow up visits high lighting benefits of OTP program  
- Provide 2 weeks supply to mothers with special conditions like long distance, going far away for work |
|   |   | CM and supervisor |
# Annexes

## Annex 1: OTP-Wise Village list-Sampling Frame

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of OTP</th>
<th>Villages/Sub-settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Siliga</td>
<td>Siliiga</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waaberi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horseed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wadajir</td>
</tr>
<tr>
<td>2</td>
<td>Tsunami</td>
<td>Hodan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tsunami</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sh.Yasin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ujurun</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bilan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barwaaqo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lafobarkato</td>
</tr>
<tr>
<td>3</td>
<td>Riiga</td>
<td>Hormuud</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Riiga</td>
</tr>
<tr>
<td>4</td>
<td>Waabari</td>
<td>Buurta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hiran</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waabari</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Camp four</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Muuse.rootilev</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alla-Amin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kheirad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marka</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Banadir</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buundo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wabari 1</td>
</tr>
<tr>
<td>5</td>
<td>Shabelle</td>
<td>Shabelle A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shabelle B</td>
</tr>
</tbody>
</table>
## Annex2 List of Participants

<table>
<thead>
<tr>
<th>SN</th>
<th>Name</th>
<th>Post</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hawa Hassan</td>
<td>PO</td>
<td>Save the Children</td>
</tr>
<tr>
<td>2</td>
<td>Sagal Mohamud</td>
<td>Nurse</td>
<td>&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Fadum Dahir Ali</td>
<td>Counselor IYCF</td>
<td>&quot;</td>
</tr>
<tr>
<td>4</td>
<td>Mohamud Hashi Ali</td>
<td>PO</td>
<td>&quot;</td>
</tr>
<tr>
<td>5</td>
<td>Abdifatah Mohamed Ahmed</td>
<td>Community Mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>6</td>
<td>Fadumo Said Mohamoud</td>
<td>Nurse TSFP</td>
<td>&quot;</td>
</tr>
<tr>
<td>7</td>
<td>Mohomed Nonen Shire</td>
<td>Community mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>8</td>
<td>Alvohmon Ahmed Hussen</td>
<td>Community Mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>9</td>
<td>Abdisalam Hussein Maow</td>
<td>Nut PO</td>
<td>&quot;</td>
</tr>
<tr>
<td>10</td>
<td>Dega Hassan Kulmie</td>
<td>OTP nurse</td>
<td>&quot;</td>
</tr>
<tr>
<td>11</td>
<td>Salah Moalin Adan</td>
<td>Community Mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>12</td>
<td>Fayle Said Misse</td>
<td>IYCF counsellor</td>
<td>&quot;</td>
</tr>
<tr>
<td>13</td>
<td>Abdulkhi Abdirahman Abdi</td>
<td>Acting PM</td>
<td>&quot;</td>
</tr>
<tr>
<td>14</td>
<td>Absluno Farah Elnn</td>
<td>Nutrition Assistant</td>
<td>&quot;</td>
</tr>
<tr>
<td>15</td>
<td>Hussein Dahir Kariye</td>
<td>Community mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Farah Ahmed Mohamed</td>
<td>Community Mobilizer</td>
<td>&quot;</td>
</tr>
<tr>
<td>17</td>
<td>Zinet Nezir</td>
<td>Nutrition Specialist</td>
<td>&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Onemus M Kluyn</td>
<td>Nutrition Specialist</td>
<td>&quot;</td>
</tr>
<tr>
<td>19</td>
<td>Sanjay Kumar Das</td>
<td>RECO (Facilitator)</td>
<td>&quot;</td>
</tr>
</tbody>
</table>
ANNEX 3 ACTIVE ADAPTIVE CASE-FINDING PROCEDURE

**Ask in the community for a guide/informant** to show you houses with oedematous, thin and sick children and children in the program.

**Ask the guide to take you to houses** with oedematous, thin and sick children and children in the program.

**Go to the first household** identified by the guide or the leader.

We are looking for children in the programme and SAM children not in the programme.

When you arrive at an identified household, introduce yourselves, the program, and explain why you are there and what you will be doing. Then start assessing the child.

**Is the child between 6-59 months of age?** To confirm the age ask for vaccination card and calculate the age in months (if no card use calendar of events to calculate the age of the child).

- **Yes**
  - Check Oedema, take MUAC
  - The child has bilateral oedema or MUAC < 115 mm?
    - If yes, is he in the OTP programme?
      - If not, is he in the OTP programme? (not a case)
  - Fill the form
  - Thank the mother, and ask her if she knows of any children that might be oedematous, thin or sick, or in the program. Then move on.

- **No**
  - Thank the career and ask the mother of this child if she knows of any children that might be oedematous, thin or sick, or in the program. Then move on.

**No (for cases not in the programme)**

Fill the form then fill up the questionnaire for children who are not in the program and refer the child to the appropriate programme.

(Refer to CSt children with oedema and WfH <70% i.e. marasmic-kwashiorkor)

---

Yes

Fill the form

Thank the mother, and ask her if she knows of any children that might be oedematous, thin or sick, or in the program.

Then move on
**Remember**

1) After you have assessed the children in the selected household, always ask the mother if she knows of any children that might be oedematous, thin or sick, or in the program. Then move on to the selected household.

2) Always ask if any child from the village is currently in hospital or at a health centre. If so, get the name of the child and mother and make sure you measure him / her in the health facility.

3) If a mother with oedematous, thin and sick child is away from the village, go where she is and measure the child.

4) If a mother with a child in a program is away from the village, take the name and age of the child, verify in the OTP register.
ANNEX 4 EPI 3 methods of sampling

Selection of the first household:

Stand at a central point in the community and choose a direction at random (e.g. by spinning a bottle). Count the houses between the central point and the edge of the community in that direction. Select one of these houses at random using a lottery methodology (writes number 1,2,3,4.....etc on pieces of paper and chooses one). If there is no young children in this house then select the nearest house with children and talk to their principal carers.

Selection of subsequent households:

Choose a random direction (e.g. by spinning a bottle) and select the third (EPI3) nearest house in that direction. If there are no children in this house then select the nearest house with children and talk to the carers. If you reach the edge of the community then return to the central point and start again.

Stopping sampling: Sampling stops when you have sampled the required number of households.

For this sample we are sampling 5 households.

Questions for the carers:

Do you know about the CMAM programme (for malnourished children)?

a. Yes  
b. No

If yes, then ask where it is and what they know about it.

Place/Site:

Day:

Target Group:
Annex 5 Qualitative data collection guideline

1. **COMMUNITY - LAY PEOPLE**
   The discussion should flow naturally and leads/interesting points should be followed/explored as they come up. The question list should not be rigidly adhered to. This is just a guide as to the kind of topics which are important and the type of questions which could be asked. The direction the discussion takes will depend on what is said by the participants. It is always important to probe and ask follow up questions.

**UNDERSTANDING OF MALNUTRITION**

1. What are the common health problems that children experience here?
2. Which are the most frequent? Rank.
3. Are any more frequent at certain times of the year? When? Why?
4. Which are the most serious? Rank. Why?

*If malnutrition mentioned ask:*

5. What symptoms do these children have?
6. What terms do you commonly use to describe this condition?
7. Which children get this condition? Why?

**HEALTH SEEKING BEHAVIOUR**

8. What do you do when your child has this (insert name of most common illnesses) problem?
   a. Probe fully for different illnesses
9. What factors determine which treatment / approach you use for a particular illness?
   Probe on:
   a. Cost, Access, Father permission, Habit/familiarity

*If clinic/hospital mentioned:*

10. Which? How far is it? Why do you go there?
11. Is there any alternative/anything else you might do/anyone you might ask for advice nearer home?

*If malnutrition not already mentioned ask/show pictures:*

12. Have you seen children like this (those who have lost weight/become very thin or whose feet/legs/hands have started to swell?)
13. When do you see this condition? Are there children who have this problem now?
14. What do you call this condition?
15. Which children get this condition? Why?
16. What do you do when your children get this condition? Why?

**AWARENESS OF CMAM SERVICE**

17. Do you know of a place where this condition can be treated?
18. How did you hear about it?
   a. Who told you? When? What do you know about it?
19. What are children given for this condition?

*If people think the RUTF is a food asks:*


a. What sort of food is it?
b. What do you call it?
c. Who can eat it?
d. What foods do you give your children to make them health/strong?

20. Do you know children receiving this treatment?

PERCEPTIONS OF CMAM

21. What do you think / what are people saying about this service?
   *If people say it is good ask:
      a. What is good about it?

22. Have you noticed a change in the children who are being treated?
23. What improvements would you like to see to the service?
   *If people say it isn’t good ask:
      a. What is wrong with it?

24. What do people not like about the service?
25. How can we change it? What suggestions do you have?

AWARENESS OF CHW/VOLUNTEER (CASE FINDER) AND HIS/HER ACTIVITIES

26. How are children identified for treatment?
   a. What tool is used?
   b. Have you seen anyone doing this in your community?
      *If people know the volunteer / have seen the MUAC ask:
         c. When was the last time you saw the volunteer measuring children? How often does he do it?
         d. How are children referred to the health centre?
      *If not, show the MUAC tape and repeat questions if necessary:

COVERAGE QUESTION

27. Do you know children who have this condition but who are not going to the health centre for treatment? Why?
28. Do you know of any children who have stopped going for treatment?
   a. Why is this? What would encourage them to return?
29. Do you know of children who have been to the clinic and have not been given the treatment?
   *If yes,
      a. Why not? What were they told? How did they feel?

BARRIERS

30. What factors might prevent children from being able to access treatment? Why?
   How can we overcome these obstacles?
31. What messages/suggestions would you like us to pass to the people running the CMAM service?
2. **Key community figures (local village/religious leaders)**

Open questions about the situation in the village / the health of the children etc. can always be asked of the leaders at the start before focusing on the issues of interest.

- Understanding of malnutrition
- Health seeking behaviour

**KNOWLEDGE AND UNDERSTANDING OF CMAM**

1. Are you aware of any nutrition service at your local clinic?
2. Who told you about it?
3. When did you hear about it?
4. What do you know about it?
   a. Target children? (ensure both marasmic and kwashiorkor types are identified)
   b. Admission criteria?
   c. Treatment given?
   d. OTP day?
   e. Identification of children?

**ROLE / AWARENESS RAISING**

5. Have you been involved in telling others about the service? How? When?

**PERCEPTIONS OF CMAM**

6. What are people saying about CMAM?
   a. Do you think most people are aware of it?
   b. What do they understand about it?
7. What do you think of the service?
   a. What do other key community figures think of it?

**BARRIERS/COVERAGE QUESTION**

8. Do you know any children currently receiving treatment in the village?
   a. What can you tell me about them?
9. Are you aware of any children who need treatment but are unable to access services?
   a. What stops them coming? (distance/family/beliefs/other)
   b. How could we reach these children/encourage them to attend?
10. Do you know any children who have defaulted/stopped coming?
    a. Why is that? How can we encourage them to return for treatment?

**STIGMA**

11. Is there a stigma attached to malnutrition in your village? Are there parents who might hide their malnourished children? Why?

**COMMUNICATIONS**

12. Do you know anyone in the village who identifies children for this service?
    a. When did you last see them? When were they last active?
    b. What do they do? (frequency and organisation of activities = passive or active)
13. Have you had any feedback from the volunteer/clinic staff/MoH officials about the service?
14. Do you know what the results are (number of children cured)?

**IMPROVEMENTS**
15. How can we improve the service?
16. Do you have any messages for those who run the service?
3. **TRADITIONAL HEALER / OTHER HEALER**  
**TREATMENT AND PERCEPTION OF MALNUTRITION**

*Start the discussion by asking:*

1. What types of illnesses do you treat? Most common? How many patients do you see a week?
2. How do you treat this illness? What do you do if the treatment is not effective?
   *If not mentioned show picture of malnourished children and ask:*
3. Do you see children like this in the village? Do you treat this illness? How do you treat this illness? How often do you see it and when? What are the causes of this illness? How effective is the treatment?
4. Are you aware of any other treatment for this condition?
   *Continue with similar questions asked of key community figures starting with awareness of the service*

**KNOWLEDGE AND UNDERSTANDING OF CMAM**

1. Are you aware of any nutrition service at your local clinic?
2. Who told you about it?
3. When did you hear about it?
4. What do you know about it?
   a. Target children? (ensure both marasmic and kwashiorkor types are identified)
   b. Admission criteria?
   c. Treatment given?
   d. OTP day?
   e. Identification of children?
4. CARERS OF BENEFICIARIES

Individual case history

HISTORY OF THE ILLNESS

1. When did you first notice that your child was unwell?
   a. What was wrong with them? What symptoms did they have?
   b. What was the cause of the problem (probe for illness / food availability)?

HEALTH SEEKING BEHAVIOUR

2. What did you do when your child became ill?
3. Did anyone tell you to go to the health centre (information source)?
4. How long was it before you went to the health centre?

INFORMATION SOURCE FOR THE OTP

5. How did you first hear about the service?
   a. Who told you?
   b. Have you heard about it from any other source since?
   c. Who is telling people about it in your settlement?
6. What did you hear about it?
7. What made you come?

AWARENESS OF/CONTACT WITH CHW/VOLUNTEER (CASE FINDER)

8. Did your child have his/her arm measured at home (MUAC)?
   a. By whom? How was it done? What did he/she tell you about it?
   b. When was the last time your child was measured at home?

UNDERSTANDING OF THE SERVICE

9. What did the clinic staff tell you about your child's condition?
10. What were you told about the treatment? (Check understanding of procedures, approximate length of treatment, what to do if you need to travel, sharing of RUTF etc.?)
11. What does the staff call the treatment? What do you call the treatment?

STANDARD OF SERVICE

12. How long do you usually wait before the nurse sees you?
13. How much time do you spend with the nurse?
   a. How do the staffs treat you?
   b. Have you ever been scolded? Why?
14. Have you always received the correct supply of treatment sachets?
   a. Have there been any shortages on any week?
   b. Have you ever not received the full amount / or received something else instead?

OPINION OF THE SERVICE

15. What do you think of the service?
   a. What are the strengths/weaknesses?
   b. Difference in the health of your child?
   c. What could be improved?

ABSENCE/DEFAULTING
16. How easy is it for you to come every week?
   a. What makes it difficult / stops you from coming sometimes?

17. Do you know of any children who have stopped coming?
   a. Why is that?
   b. How can we encourage these children to return and continue the treatment?

**COVERAGE QUESTION**

18. Do you know of other children who have the same problem but who are not attending the clinic?
   a. If yes, why not?
Group discussion with carers

INFORMATION SOURCE FOR THE OTP

1. How did you first hear about the service?
   a. Who told you?
   b. Have you heard about it from any other source since?
   c. Who is telling people about it in your settlement?
2. What did you hear about it?
3. What made you come?

AWARENESS OF/CONTACT WITH CHW/VOLUNTEER (CASE FINDER)

4. Did your child have his/her arm measured at home (MUAC)?
   a. By whom? How was it done? What did he/she tell you about it?
   b. When was the last time your child was measured at home?

STANDARD OF SERVICE

5. How long has your child been receiving treatment?
6. Difference in child’s condition?
7. Have you had any difficulties in following the treatment/attending every week? (Probe for: distance, waiting time, welcome, etc.)
8. Have you missed a week? Why?
9. Have you always received the correct supply of treatment sachets?
   a. Have there been any shortages on any week?
   b. Have you ever not received the full amount / or received something else instead?

OPINION OF THE SERVICE

10. What do you think of the service?
    a. What are the strengths/weaknesses?
    b. What could be improved?

DISTANCE

11. How far is it from your home to the clinic?
    a. How do you get here? Walk/transport?
    b. How long does it take?
    c. Determine the farthest distance travelled within the group
12. Do you have any other reason to come to this clinic/this place?

COVERAGE QUESTION/DEFAULTING

13. Do you know of any children who have stopped coming?
    a. Why is that?
    b. How can we encourage these children to return and continue the treatment?
14. Do you know of other children who have the same problem but who are not attending the clinic?
    a. If yes, why not?
    b. What would encourage them to come?

CASE REFERRAL

15. Have you told anyone else to bring their child to the clinic?
    a. Why/why not?
**PERCEPTION OF CMAM**

16. What are people saying about the service in your settlement?
17. Are the other mothers aware of the service?

**STIGMA**

19. Is there a stigma attached to malnutrition in your village? Are there parents who hide their children? For what reason?

*If stigma exists:*

20. How does the stigma affect you personally? In what way?

**FEEDBACK**

18. Have you any messages you want us to give to the people running the service?
5. VOLUNTEERS

ROLE

1. How long have you been a volunteer?
2. What are your main activities?
3. How often do you do these activities?
4. What area do you cover for case finding?
   a. How long does it take you?
5. How do you decide which children to measure?
6. What tools do you have to help you?
7. Tell me about the last case you identified? When was that? What was the problem?

EXPLANATION GIVEN TO MOTHERS

8. What do you tell the mother when you identify a case?
9. What do you say about the new treatment?
10. How do you refer to the treatment?
   a. What do the mothers call it?

REFERRAL AND FOLLOW UP

11. Do you give the mother a referral slip/paper when you refer the child to the clinic?
   a. Why/why not?
   b. How do you know if the child actually went to the clinic?
12. Are you aware of any children who have stopped coming?
   a. Why is that? How can we encourage them to return?
13. Are you ever asked to visit a case that is not improving / has been absent? Tell me about the last one you visited.

REJECTION

14. Have you referred any children who have been turned away and not given treatment?
   a. For what reason? How many were rejected last month?
   b. Did you receive an explanation from the nurse as to why?
   c. How did the mother react?
   d. What was your reaction?
15. Are you aware of any other children who went spontaneously to the health centre and were turned away and not given treatment? Probe: a-d as above.

COVERAGE QUESTION

16. Do any mothers refuse to go to the clinic? Why? How can we encourage them to bring their children?

COMMUNICATIONS

17. When was your last contact with clinic staff?
18. Are there regular monthly / 3 monthly meetings with health centre staff? Are CMAM issues discussed?
19. Do you have a monthly written/verbal report to make on your activities (number of children identified, number referred, home visits etc.)
20. How do you usually communicate with the nurse at the health centre (for example when a home visit is needed)
21. Have you received any feedback from clinic staff
   a. Number cured?
b. Number of defaulters? Reason?

22. Have you talked with village / religious leaders or other people about CMAM since it started? When was your last contact? Topic of discussion?

23. Have you had any further contact with children you have referred?
   a. Do you know how many were cured?
   b. Do you know if any defaulted? Why?

24. What have mothers said to you about CMAM?
   a. What are people saying/thinking about CMAM?

**OPINION OF THE OTP**

25. What is your opinion of the OTP? Why?
26. What is the opinion of the community?

**MOTIVATION**

27. Appreciation of your work by the community?
28. Appreciation of your work by programme staff?
29. Do you enjoy your role? Why / why not?
30. Challenges / difficulties?

**IMPROVEMENTS**

31. What would help you in your job as a volunteer?
32. How do you think CMAM could be improved?
33. Any messages for those running the service?
6. **OTP STAFF**

**CMAM INVOLVEMENT AND CHALLENGES**

1. How long have you been working on CMAM?
   a. How many staff are involved/trained on CMAM?
2. When were you trained on CMAM?
   a. Have you had refresher training?
   b. Is there any additional training you feel you need?
3. What difficulties, if any, do you have on the CMAM day?
   a. High number of patients
   b. Time
   c. Completing paperwork accurately and keeping up to date

**CALENDAR**

4. What are the main childhood diseases you see in the clinic?
   a. Which is the most common? Rank.
   b. What time of year do they occur?
5. What do you think are the causes of malnutrition here?

**REFERRAL**

6. How do children usually come to the clinic for CMAM?
   a. Referred by volunteer
   b. Heard about it from other beneficiary
   c. Heard about it from other person in the village
   d. Heard about it at the clinic
   e. Heard via the radio/town crier etc.
   f. Other source
   g. Rank in order

**REFERRAL AND FOLLOW UP**

7. Do children who are referred by the volunteer come with a referral slip/paper?
   a. What do you do with the referral slips?
8. Is there a system to check that the child referred by the volunteer has actually presented at the clinic? System to confirm the number of referrals per volunteer?
9. How do you refer patients to the stabilisation centre? Paper slip?
   a. How do you know if they have arrived at the SC?
   b. Do you know what happens to them?
   c. When patients are referred back do they come with any paperwork?

**REJECTION**

10. How many healthy children have you rejected who do not correspond to the admission criteria?
    a. How many every week?
    b. Explanation given? What do you actually say/what words do you use?
    c. Why do you think these mothers come with healthy children?
    d. How do mothers react?
11. Have you had any wrong referrals from the volunteer?
    a. How many? What was the problem? Did you report back to the volunteer?

**DEFAULTING**

12. How many children are absent for more than 1 week during the course of treatment?
a. Why do you think this is?
13. How many children default?
   a. Why do you think this is?
14. Is there a system to follow up on defaulters? How does it work? How could we encourage children to return for treatment?
15. What barriers prevent mothers from bringing their children to the OTP?

**COVERAGE QUESTION**

16. Are you aware of any children with this condition who don’t come to the CS? Why is that?

**COMMUNICATIONS**

17. Are there regular monthly/3 monthly meetings with volunteers? Are CMAM issues discussed? How often do you see the volunteers? Last time?
18. When was the last time you saw someone from the district office? Frequency of contact?
19. Support from the district?

**OPINION OF THE SERVICE**

20. Does the OTP give good results?
21. Has the condition of the children improved?

**WORK LOAD**

22. Does the OTP give you more work?
23. What changes have you had to make to your routine activities?

**IMPROVEMENTS (different order)**

25. What messages do you want us to pass to the people organising CMAM?
ADDITIONAL QUESTIONS (adapt according to the audience)

Terminology:

- Check what terms are used to describe the different types of malnutrition.

Key people:

- In your village who are the people who are in close contact with children under 5 and can point out their houses (because they are involved in care or preventive/other activities).

Calendars:

- Ask the community to help you develop seasonal calendars for:
  - The hunger gap
  - Agricultural labour (periods of intense activity)
  - Child illness (ARI, malaria, fever, diarrhoea etc.)
Annex 6. Survey Questionnaire for caretakers with SAM cases
NOT in the programme

Ward: _____________ Village: _____________

Child Name: _________ Team: _______

DO YOU THINK YOUR CHILD IS MALNOURISHED (sick, thin, have oedema on both legs)?
□ YES □ NO

ARE YOU AWARE ABOUT THE EXISTENCE OF A PROGRAMME WHICH CAN HELP MALNOURISHED CHILDREN?
□ YES □ NO (stop)
If yes, which programmes (s)? _______________________________________

WHY DID YOU NOT TAKE YOUR CHILD TO THAT PROGRAMME?
□ Too far (How long to walk? ………hours)
□ No time / too busy
Specify the activity that makes them busy this season __________________________
□ The mother is sick
□ The mother cannot carry more than one child
□ The mother feels ashamed or shy about coming
□ No other person who can take care of the other siblings
□ The amount of food was too little to justify coming
□ The child has been rejected. When? (This week, last month etc)_____________
□ The children of the others have been rejected
□ My husband refused
□ The mother thought it was necessary to be enrolled at the hospital first
□ The mother does not think the programme can help her child (prefers traditional healer, etc.)
□ Other reasons: ___________________________________________________

WAS YOUR CHILD PREVIOUSLY ADMITTED TO OTP/SC PROGRAMME?
□ YES □ NO (=> stop!)
If yes, why is he/she not anymore enrolled?
□ Default, When.........................Why?....................
□ Discharged cured by the programme (when? ..........)
□ Discharged non-cured (when? ..........)
□ Other:___________________________________________
(Thank the mother/carer)