

COX'S BAZAR REFUGEE SETTLEMENTS

COVERAGE ASSESSMENT OF CMAM SERVICES

SLEAC assessment and qualitative investigation

JULY / AUGUST 2018

Survey coordinator:

Hugh Lort-Phillips, Global Coverage Advisor, Action Against Hunger UK

Survey implementation:

Action Against Hunger Bangladesh Survey Team with support from BRAC, Care Bangladesh, Concern Worldwide, SARPV, Save the Children International, Terre des Hommes, SHED, UNHCR, UNICEF, WFP and World Vision International

EXECUTIVE SUMMARY

In July and August 2018 a coverage assessment of CMAM services was completed in the Cox's Bazar refugee settlements in Bangladesh. The assessment took place around ten months after the influx of more than 700,000 Rohingya refugees into the Cox's Bazar refugee settlements. The coverage assessment took place over the course of four weeks and was completed by the Action Against Hunger Bangladesh survey team in collaboration with the partners of Cox's Bazar's Nutrition Sector.

The main objectives of the coverage assessment were to classify the coverage of SAM and MAM treatment services across five predefined "SLEAC zones" and to estimate coverage for the entire assessment area in order to provide nutrition partners with baseline coverage estimates and to provide them with information to improve service uptake. To achieve this, a coverage assessment was completed using the SLEAC methodology (Simplified Lot Quality Assurance Sampling Evaluation of Access and Coverage) in parallel with a qualitative investigation in selected communities.

The assessment area included all registered and makeshift camps in the upazilas of Ukhia and Teknaf (33 camps in total). Refugee populations in host communities were not included. The SLEAC assessment enabled nutrition partners to classify treatment coverage of Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) treatment on a three-tier scale (Low, Moderate or High) in each zone and to estimate coverage. Nutrition partners agreed the scale as follows: coverage would be considered "High" if it exceeded 90% (the Sphere standard for camp contexts), "Moderate" if it fell from 60-90% and "Low" if it was less than 60%. Coverage was calculated using the "Single Coverage Estimator" and the "Point Coverage Estimator". The results below present the "Single Coverage estimator" results.

SAM treatment coverage results: Coverage of SAM treatment services was classified as low in all five of the SLEAC zones. The results across the five zones were sufficiently homogenous to be able to estimate coverage the entire assessment area. The coverage estimate for SAM treatment services was calculated to be 27.7% (95% CI: 22.5-32.9%).

MAM treatment coverage results: The sample sizes of MAM cases in each zone were large enough to be able to calculate coverage estimates by zone of the Therapeutic Supplementary Feeding Programmes (TSFP) operating in the camps. The results were as follows:

	Estimated coverage	Lower 95% CI	Upper 95% CI
Zone 1	25.6%	21.3%	29.9%
Zone 2	36.7%	32.0%	41.3%
Zone 3	37.4%	32.5%	42.2%
Zone 4	41.9%	36.7%	47.0%
Zone 5	33.9%	27.9%	39.8%

A chi-squared test confirmed that TSFP coverage across the whole assessment area was patchy / varied. However it is still possible to publish an overall coverage estimate for TSFP services: 34.1% (95% CI: 31.9-36.4%).

Interviewers completed structured questionnaires with all carers of non-covered cases to identify the primary reason for non-attendance to the relevant nutrition programme. The responses provided by carers of non-covered SAM cases were very similar to those of non-covered MAM cases. For both SAM and MAM non-covered cases, the four most commonly cited reasons were the same and accounted for around 70% of all responses.

Reason for non-attendance	Percentage of SAM carers who cited this as primary reason (147 respondents)	Percentage of MAM cares who cited this as primary reason (927 respondents)
Carer does not think that the child is sick	32%	39%
Carer knows that the child is sick, but is unaware of treatment services	20%	19%
The carer has been previously rejected from nutrition treatment services	12%	7%
The carer is sick so cannot take their child to the OTP/TSFP	6%	6%

Qualitative investigation findings: The qualitative investigation involved investigation teams interviewing a range of key informants in 20 sub-blocks. The responses were categorised and triangulated with the aim of identifying common negative and positive factors influencing the coverage of nutrition treatment services.

The majority of key informants were able to recognise at least one of the symptoms of acute malnutrition in a child. However knowledge about the causes and effects of malnutrition could be identified by fewer participants and incorrect beliefs about malnutrition were cited frequently throughout the assessment area.

There was some awareness of nutrition services amongst key and there was strong evidence that community level case finding and sensitisations were taking place in all SLEAC zones. However it was found that they were not always reaching the correct audiences.

Multiple negative factors were identified in relation to the delivery treatment services with carers identifying excessive waiting time and rude staff as some of the problems encountered at nutrition treatment centres. There was also strong evidence of the sale or misuse of therapeutic products used to treat acute malnutrition.

Finally, in spite of the relatively short distances that carers needed to travel to reach nutrition treatment centres, around half of key informants interviewed stated that access was often a challenge due to a combination of the topography of the area, long distance to centres and rains.

Discussion and Recommendations:

The “low” coverage results found in the Cox’s Bazar refugee settlements were attributed to a number of factors.

- The recent establishment of nutrition programmes in the camps at the time of the assessment meant that community outreach activities in some camps had only been operating in camps for 3-4 months.
- The possible perception by carers that they do not consider their child to be “sick”, even if they are showing symptoms of acute malnutrition
- Quality of care failings in nutrition centres and coordination challenges between nutrition partners
- The relatively low “MUAC cut-off” of 125mm in use at the time of the assessment. The anthropometric results from the assessment indicated that 29% of SAM cases and 65% MAM identified would have been missed during screening in communities as their MUACs were equal to or greater than 125mm.

Actions to address the quality of care problems identified should be prioritised as coverage will remain low if carers continue to have negative experiences in nutrition treatment centres. Furthermore, partners should focus on developing and implementing community outreach strategies based on the health seeking behaviours of Rohingya communities which are coordinated and consistent across all refugee settlements. More detailed recommendations are included in Section 6.

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We would also like to pass on our thanks to the data collectors (including measurers, interviewers and investigators) who participated in the coverage assessment. Without exception, all data collectors worked hard, in often difficult conditions, to collect quality data and participated willingly in trainings and data feedback sessions.

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- The Nutrition Sector and the Nutrition Sector partners for their participation and interest in the implementation of the assessment and the participation in the results dissemination workshop
- The Assessment Technical Working Group of the Nutrition sector for reviewing the coverage assessment protocol and the results of the coverage assessment.
- The International Organization for Migration for providing the Needs and Population Monitoring estimates which contributed to the assessment planning and high-quality sampling.

Finally, thanks especially to the Rohingya communities for willingly participating in the coverage assessment and for providing responses and explanations during data collection.

ABBREVIATIONS

ATWG	Assessment Technical Working Group
BSFP	Blanket Supplementary Feeding Programme
CI	Confidence interval
CiC	Camp in Charge
Cin	A case in the programme
Cout	A case not in the programme
CMAM	Community-based Management of Acute Malnutrition
CNV	Community Nutrition Volunteer
EPI	Expanded Programme of Immunisations
FGD	Focus Group Discussion
GAM	Global Acute Malnutrition
ISCG	Inter Sector Coordination Group
LQAS	Lot Quality Assurance Sampling
MAM	Moderate Acute Malnutrition
MUAC	Mid-upper Arm Circumference
OJT	On the job training
OTP	Out-patient Treatment Programme
PLW	Pregnant or Lactating Woman
Rin	A recovering case (i.e. a case that was SAM/MAM but who is still in the OTP/TSFP programme as they have not yet reached discharge criteria)
Rout	A Recovering case not in the programme (i.e. a case that has recovered from SAM / MAM without being admitted to an OTP/TSFP)
RUSF	Ready to Use Supplementary Food
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
SARPV	Social Assistance and Rehabilitation for the Physically Vulnerable
SHED	Social Health and Education Development
SMART	Standardised Monitoring and Assessment of Relief and Transitions
SLEAC	Simplified Lot Quality Assurance Sampling Evaluation of Access and Coverage
SQUEAC	Semi-quantitative Evaluation of Access and Coverage
TSFP	Therapeutic Supplementary Feeding Programme
TWG	Technical Working Group
UNHCR	United Nations Human Commissions for Refugees
WFH	Weight-for-height Z score
WFP	World Food Programme
WN	A well-nourished child
WSB	Wheat Soya Blend

1. CONTEXT

1.1. OVERVIEW

Since 25 August 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 700,160 Rohingya refugees across the border into Cox's Bazar district, Bangladesh. The people and Government of Bangladesh welcomed them with resounding generosity and open borders. The speed and scale of the influx was nonetheless a challenge, and the humanitarian community stepped up its support to mitigate a critical humanitarian emergency. One year later refugees remain forced to rely upon humanitarian assistance for their basic needs. They live in congested sites that are ill equipped to handle the monsoon and cyclone season.

In May 2018 a census was completed which found that there were an estimated 914,678 Rohingya refugees in Cox's Bazar district of which an estimated 882,676 are located in camps and refugee settlements¹. In line with the results of the census, the ISCG Nutrition Sector - Cox's Bazar scaled up its response to address the nutrition needs of the population.

1.2. NUTRITION SERVICES

Together with partners, the Nutrition Sector is responsible for the Community-based Management of Acute Malnutrition (CMAM) programme within the refugee settlements. In July 2018 the CMAM programme was composed of 3 Stabilisation Centres, 57 Outpatient Treatment Programmes (OTP) and 28 Targeted Supplementary Feeding Programmes (TSFP).

The OTPs provide treatment for children aged 6-59 months suffering from Severe Acute Malnutrition (without complications). The TSFPs, which are located alongside Blanket Supplementary Feeding Programmes (BSFP), provide treatment for children aged 6-59 months suffering from Moderate Acute Malnutrition. Pregnant and Lactating Women who are identified as acutely malnourished can also receive treatment from TSFPs. Children suffering from acute malnutrition who are less than 6 months of age and children aged 6-59 months suffering from acute malnutrition with complications are treated in the Stabilisation Centres.

1.3. COVERAGE ASSESSMENT

Coverage assessments set out to measure the *treatment coverage* of CMAM programmes. The treatment coverage of a CMAM programme refers to the proportion of children eligible for treatment for SAM or MAM who actually receive treatment. Coverage is one of the key principles of the CMAM operating model. If coverage is high then it can be an indication that a high proportion of children in the programme are being successfully treated through to cure. The coverage of a CMAM programme is also a key indicator of the effectiveness of the community outreach component of the CMAM programme.

Treatment coverage can be estimated by comparing admissions to the programme over time with the expected number of cases within a defined area (which can be calculated with recent population and prevalence data). However this can only provide an indirect coverage estimate. Coverage assessments can therefore be completed to obtain a direct coverage estimate of CMAM services and to provide information which can help programme implementers to improve service uptake. The two leading

¹ Based on the results of the Needs and Population Monitoring Site Assessment Round 10

coverage assessment methodologies used by nutrition programmes today include SQUEAC² and SLEAC³.

The Action Against Hunger Bangladesh Surveillance Team implemented a SQUEAC assessment in Cox's Bazar district in 2017 in Moheshkhali upazila with the support of Action Against Hunger UK. In 2018, the nutrition sector therefore requested that they lead a baseline CMAM coverage assessment in the Cox's Bazar refugee settlements with the support of Action Against Hunger UK.

The overall and specific objectives of the coverage assessment were as follows:

Overall objective of coverage assessment

To classify the coverage of SAM and MAM treatment services in five zones of the refugee camps and settlements in the region of Cox's Bazar, Bangladesh and to estimate coverage of acute malnutrition treatment services for the entire survey area.

Specific objectives

- To conduct SLEAC surveys in five SLEAC zones of the Cox's Bazar camps to classify coverage of SAM and MAM treatment services for children aged 6-59 months
- To estimate coverage of SAM and MAM treatment services for children aged 6-59 months in the Cox's Bazar camps
- To identify the primary factors preventing service uptake of available CMAM services by SLEAC zone and overall
- To identify the primary factors encouraging service uptake of available CMAM services by SLEAC zone and overall
- To complete a qualitative investigation in the camps of Cox's Bazar to gather detailed information from communities on the primary factors influencing the coverage of CMAM services
- To elaborate recommendations and activities to improve service uptake of CMAM services in the Cox's Bazar camps

² Semi-quantitative evaluation of access and coverage

³ Simplified LQAS (Lot Quality Assurance Sampling) Evaluation of Access and Coverage

2. COVERAGE ASSESSMENT METHODOLOGY

2.1. INTRODUCTION

The assessment in Cox's Bazar was conducted using the SLEAC methodology in parallel with a qualitative assessment. The methodologies of both components of the assessment are described in more detail in the next section. This section outlines the justification for the choice of methodologies and the key outputs of each methodology.

2.2. JUSTIFICATION FOR CHOICE OF METHODOLOGY

The assessment methodology was elaborated in the assessment protocol which was shared with and validated by the Nutrition Sector's Assessment Technical Working Group (ATWG) prior to the start of the assessment.

In preparing for the coverage assessment, the Action Against Hunger UK Coverage Team needed to design a bespoke methodology to measure the coverage of the Cox's Bazar refugee settlements using the limited time available (approximately 15 days of data collection time).

Typically, a coverage assessment aims to assess the coverage of services a service delivery unit. In camp contexts, a service delivery unit would be an individual camp. SQUEAC assessments provide service providers with the most detailed and useful information relating to coverage and to the factors limiting or encouraging service uptake. However individual SQUEAC assessments can take up to 3 weeks to complete per service delivery unit. Therefore, with the time and resources available for this assessment, conducting multiple SQUEAC surveys across the 33 camps in the Cox's Bazar refugee settlements was unfeasible.

The SLEAC methodology is most suitable for assessing the treatment coverage of CMAM programmes across large areas (e.g. at provincial, regional or national level). However even conducting a SLEAC survey at "camp" level in the 33 camps would have involved at least 6 weeks of data collection. Therefore with the limited time available, the assessment area in Cox's Bazar refugee settlements was divided into 5 zones (see Assessment Area) and a SLEAC assessment was planned and conducted in each zone.

One limitation of SLEAC assessments is that they do not provide very detailed qualitative results and findings. Therefore in Cox's Bazar a qualitative assessment was designed to run in parallel to the SLEAC assessment. This meant that the results from the SLEAC could be combined with the outputs of the qualitative assessment thus enabling Nutrition Sector partners to develop more specific activities to improve community outreach in communities and the quality of care of SAM and MAM treatment in nutrition facilities.

The combined outputs of the SLEAC and qualitative assessments are outlined in Table 1.

Table 1: Expected outputs of SLEAC assessment and qualitative investigation

SLEAC	Qualitative investigation
- Coverage estimates of OTP and TSFP services for the combined assessment area of the refugee settlements - Coverage classifications for OTP and coverage estimates for TSFP services in each SLEAC zone - Key reasons for non-participation in programmes from carers of non-covered cases by zone - Indications of positive factors encouraging coverage from carers of covered cases by zone	- Positive and negative factors relating to malnutrition, nutrition programmes and community outreach by camp and by zone. - Triangulation of factors by key informant to provide indication of sources of negative and positive messages.

The Cox's Bazar Nutrition Sector partners will therefore be able to use the outputs of both components of the coverage assessment to:

1. Identify areas of low coverage
2. Through analysis of the SLEAC qualitative results, understand the primary reasons for poor coverage in low coverage areas, and understand the what is working well in moderate / high coverage areas
3. Use the results of the qualitative investigation to refine community outreach strategies and to improve activities within nutrition centres.

In the future, individual Nutrition Sector partners may choose to conduct more detailed coverage assessments at camp level using the SQUEAC methodology with the aim of adapting the CMAM programme to the needs of individual communities in camps.

2.3. SLEAC ASSESSMENT METHODOLOGY

2.3.1. OVERVIEW OF METHODOLOGY

The SLEAC methodology⁴ was developed by Valid International, FANTA, Brixton Health, Concern Worldwide, Action Against Hunger and World Vision in order to classify and/or estimate the coverage of Community based Management of Acute Malnutrition programmes and to identify the primary barriers preventing carers from accessing the service.

The SLEAC methodology is the method most suitable for assessing the treatment coverage of CMAM programmes across large areas (e.g. at provincial, regional or national level). The method enables survey teams to (1) classify coverage on a two or three tier scale across multiple service delivery units and (2) to estimate coverage at provincial, regional or national level.

The survey methodology uses a classification system derived from the "Lot Quality Assurance Sampling" (LQAS) classification technique which enables classification on a two or three-tier scale.

The SLEAC methodology uses a two stage sampling procedure. The first stage ensures that a geographically representative selection of sampling points are selected. The second stage involves an exhaustive case finding methodology to ensure that all eligible cases are identified during the survey in line with a case definition. When a case is identified, the survey team completes a questionnaire with the child's carer using a structured questionnaire which provides information about why the child is

⁴ The technical reference for the methodology is available here: <http://www.coverage-monitoring.org/wp-content/uploads/2014/10/SQUEAC-SLEAC-Technical-Reference-Oct2012.pdf> (starting from page 114)

not in the programme (for a non-covered case) or why the child is in the programme (for a covered case).

The data and findings from the second stage are then analysed using the “Lot Quality Assurance Sampling” (LQAS) classification technique to determine the treatment coverage classification (for SAM treatment and MAM treatment) and to classify coverage on a three-tier scale. Based on results collected, survey teams are able to classify treatment coverage as being “low”, “moderate” or “high” depending on a scale agreed by stakeholders prior to the start of the assessment (see Data analysis). The advantage of this method is that relatively small sample sizes are needed (e.g. approximately 40 active SAM or MAM cases) in order to make an accurate classification of coverage in a service delivery unit.

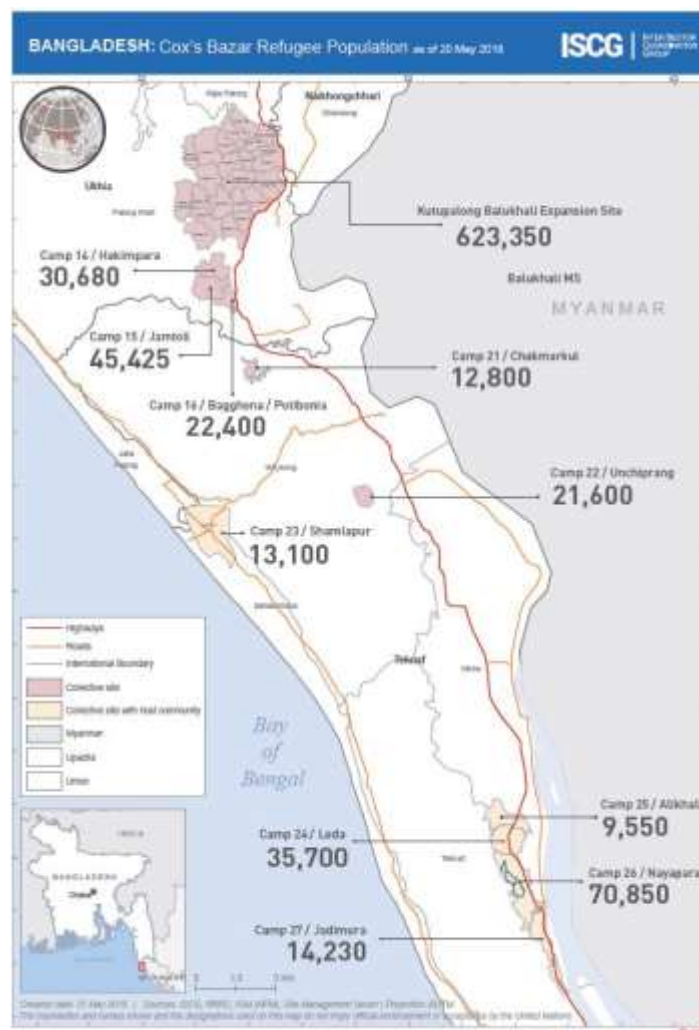
The results from the questionnaires are then analysed to identify and rank the factors limiting service uptake and the factors encouraging service uptake.

The SLEAC method can also estimate coverage for an assessment area comprised of several service delivery units. SLEAC assessment results from the individual service delivery units can be combined in order to estimate coverage for the entire survey area.

2.3.2. ASSESSMENT AREA

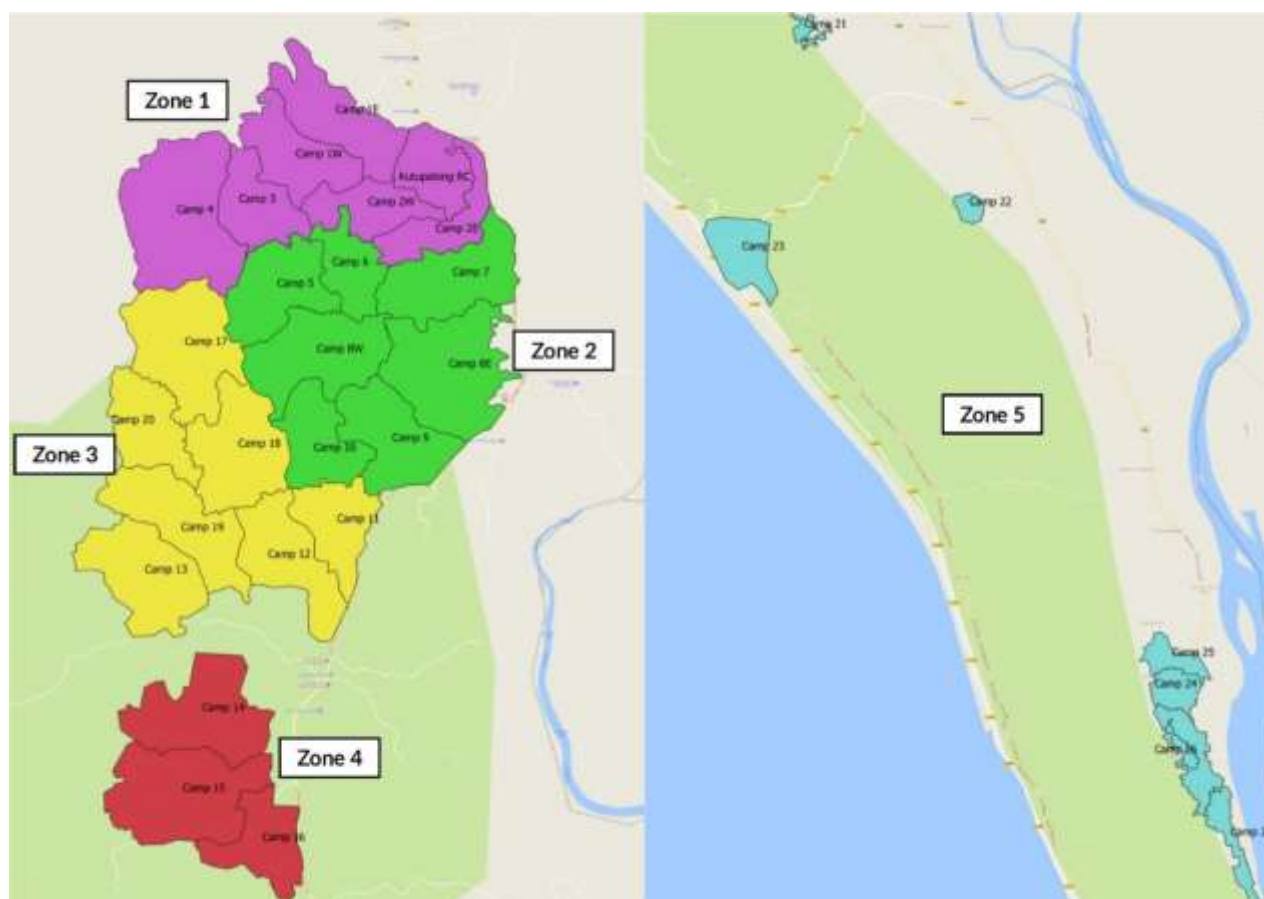
The survey area included all of the established and makeshift Rohingya refugee camps in the upazilas of Teknaf and Ukhia in the region of Cox’s Bazar in southern Bangladesh. Map 1 shows the locations of the camps and their estimated populations as of 20 May 2018 (map produced by the Inter Sector Coordination Group). The survey area excludes the refugee population housed in host communities (which includes approximately 15,000 individuals).

Map 1: Overview of assessment area with populations



Considering the size of the total population of the refugee settlements, the assessment area was divided into five “SLEAC zones”. The zones were defined based on geographical location and population. The SLEAC Zones and the camps included in each zones are shown on Maps 2 and 3.

Maps 2 and 3: SLEAC Zones and camps for SLEAC assessment



2.3.3. TIMELINE

The assessment took place over approximately three weeks from 26th July to 14th August 2018. The main activities included:

- 5 days of briefings, preparation and training of assessment team
- 13 days of data collection
- 3 days of data analysis and feedback to partners

The full timeline can be found in Annex 2.

2.3.4. ASSESSMENT TEAM

The assessment team for the SLEAC assessment was composed of a Global Coverage Advisor, a Survey Manager, a Survey Supervisor and 14 data collection teams.

Each data collection team contained four members:

- 1 Team leader
- 1 Interviewer (female)
- 2 measurers

Together with the Global Coverage Advisor, the Survey Manager and the Survey Supervisor, the Team leaders of the data collection teams formed the Core Team.

A full list of participants is included in Annex 3.

2.3.5. TRAINING OF ASSESSMENT TEAM

The Global Coverage Advisor conducted a two day training with the Core Team in the week before the start of data collection. The training included the following topics:

- Detailed presentation of entire SLEAC methodology
- Overview of qualitative investigation
- Data collection steps and practice with questionnaires loaded onto tablets using “KoBoToolbox”
- Roles and responsibilities of team members

The interviewers and measurers then joined on the third day to be briefed on the objectives of the assessment and to be trained on their responsibilities during data collection.

There was meant to be a field test on the fourth day. However due to heavy rains, the survey team could not leave Cox’s Bazar town. As such, data collection teams remained in the training room and conducted role plays with the tablets in order to prepare for data collection.

2.3.6. CALCULATION AND SELECTION OF PRIMARY SAMPLING UNITS

The first step to complete when planning a SLEAC assessment includes calculating the number of sampling units to visit to find the required sample size and then selecting the sampling units.

Calculation of minimum sample size

The first step in selecting primary sampling units is to calculate the sample size of SAM and MAM cases to find during the SLEAC survey in the SLEAC zone. To classify coverage in a defined service delivery unit, a minimum sample size of 40 SAM and MAM cases needs to be found during case finding. However, if the expected number of SAM or MAM cases at the time of the survey is likely to be less than 500 (which might be the case if the populations of service delivery units are small and/or the prevalence of SAM or MAM is low), the sample size can be reduced based on Table 2.

Table 2: Target sample sizes for SLEAC assessments

Total number of cases in the service delivery unit	Target sample size
>500	40
250-500	33
125-250	32
100-125	29
80-100	26
60-80	26
50-60	25
40-50	22
30-40	19
20-30	18
<20	15

This table is taken from page 115 of the SLEAC technical reference⁵.

⁵ The technical reference for the methodology is available here: <http://www.coverage-monitoring.org/wp-content/uploads/2014/10/SQUEAC-SLEAC-Technical-Reference-Oct2012.pdf> (starting from page 114)

The expected number of SAM or MAM cases in each service delivery unit can be calculated with the following formula:

$$\text{average sampling unit population all ages} \times \frac{\text{percentage of population 6 – 59 months}}{100} \times \frac{\text{SAM or MAM prevalence}}{100}$$

Once the required sample size per service delivery unit is calculated, it is then necessary to calculate the number of sampling units to visit to locate the sample size.

Calculation of sampling units to visit

The following calculation is used to calculate the number of sampling units to visit to reach the required sample size (n = required sample size):

$$\left\lceil \frac{n}{\text{average sampling unit population all ages} \times \frac{\text{percentage of population 6 – 59 months}}{100} \times \frac{\text{SAM or MAM prevalence}}{100}} \right\rceil$$

During a SLEAC assessment the primary sampling units should be the smallest possible catchment areas in a zone (typically a village in rural settings).

In the context of the Cox's Bazar camps, the assessment team decided to use the sub-blocks of the camps as the primary sampling units. The average population of each sub-block was based on population data from NPM Round 10 which took place in May 2018. The average sub-block population for each SLEAC Zone is shown in Table 3.

When teams assess the coverage of two selective treatment programmes (eg. OTP and TSFP) in the same communities, the planning of the survey should be based on the rarer condition. Therefore, for the SLEAC assessment in Cox's Bazar, the calculation of the number of sub-blocks to visit was based on needing to find the minimum required sample of SAM cases.

The SAM prevalence used was based on the results of the latest SMART survey in the camps which was conducted in May and June 2018⁶. The SAM prevalence by weight-for-height Z score (WFH) from the Makeshift settlements (including all camps in Maps 2 and 3 except Kutupalong and Nayapara registered camps) was 2% (95%CI: 1.1-3.6). In order for teams to stand a better chance of reaching the minimum sample size, a lower prevalence of 1.5% was used (this fell half way between the mode of the prevalence (2%) and the lower confidence interval (1.1%)). An additional two sub-blocks were added to the total sub-blocks to visit in each zone in case sub-blocks were inaccessible at the time of the survey and needed to be excluded.

During the previously mentioned SMART survey in May and June 2018, the prevalence of SAM in Nayapara Registered Camp was found to be slightly lower than in the Makeshift camps (1.4%, 95%CI 0.6-3.6). However as Nayapara registered camp is just one of eight camps which make up Zone 5, the Surveillance Team judged that the prevalence of 1.5% would be sufficient to locate the minimum sample size in Zone 5.

Table 3 lists the relevant data used for each zone to calculate the number of sampling units to visit in order to classify SAM coverage.

⁶ Emergency Nutrition and Health Assessment Round 2, Cox's Bazar, Bangladesh, Preliminary Results

Table 3: Sample size calculations for OTP coverage classifications

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	TOTAL
Total population	219572	229945	173827	98493	177764	899601
%6-59 months	15%	15%	15%	15%	15%	
%SAM prevalence	1.50%	1.50%	1.50%	1.50%	1.50%	
Est no of SAM cases	494	517	391	222	400	2024
Minimum sample size	40	40	33	32	33	178
No. of sub clusters	425	461	389	179	378	2245
Av. Population per sub-block	517	499	447	550	470	
No. of sub-blocks to visit	37	38	35	28	34	172

Table 4 shows the data used to calculate the number of sub-blocks to visit to locate the minimum sample size of MAM cases. It indicates that it would be necessary to visit a much smaller number of sub-blocks in order to reach the minimum sample size for MAM cases. However as case finding for SAM and MAM cases was conducted in the same sub-blocks based on the number of sub-blocks needed to meet the SAM sample size, the sample size of MAM cases far exceeded the minimum sample size required (see Section 3.5).

Table 4: Sample size calculations for TSFP coverage classifications

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	TOTAL
Total population	219572	229945	173827	98493	177764	899601
%6-59mths	15%	15%	15%	15%	15%	
%MAM prevalence	10.00%	10.00%	10.00%	10.00%	10.00%	
Est no of MAM cases	3294	3449	2607	1477	2666	13494
Minimum sample size	40	40	40	40	40	200
No. of sub blocks	425	461	389	179	378	1832
Av. Population per sub-block	517	499	447	550	470	
No. of sub-blocks to visit	8	8	8	7	8	39

Selection of the sub-blocks: During a SLEAC survey, selection of the sampling units to visit can be made using one of two methods.

If detailed maps are available marked with the names of each sampling unit (sub-block in Cox's Bazar camps) for the entire survey area, the centric systematic area sampling methodology can be used to select the sub-blocks to visit. This will involve drawing a grid over the map to create quadrats. The sub-block at, or nearest, the centre of each quadrat will then be selected as the sub-block to visit.

If no detailed maps are available, then the SLEAC sample sub-blocks can be selected from a complete list of sub-blocks using the systematic stratified sampling methodology.

For the Cox's Bazar SLEAC, detailed maps were available, however they were only available at camp level. Therefore the systematic stratified sampling methodology method was used to identify the selected sub-blocks.

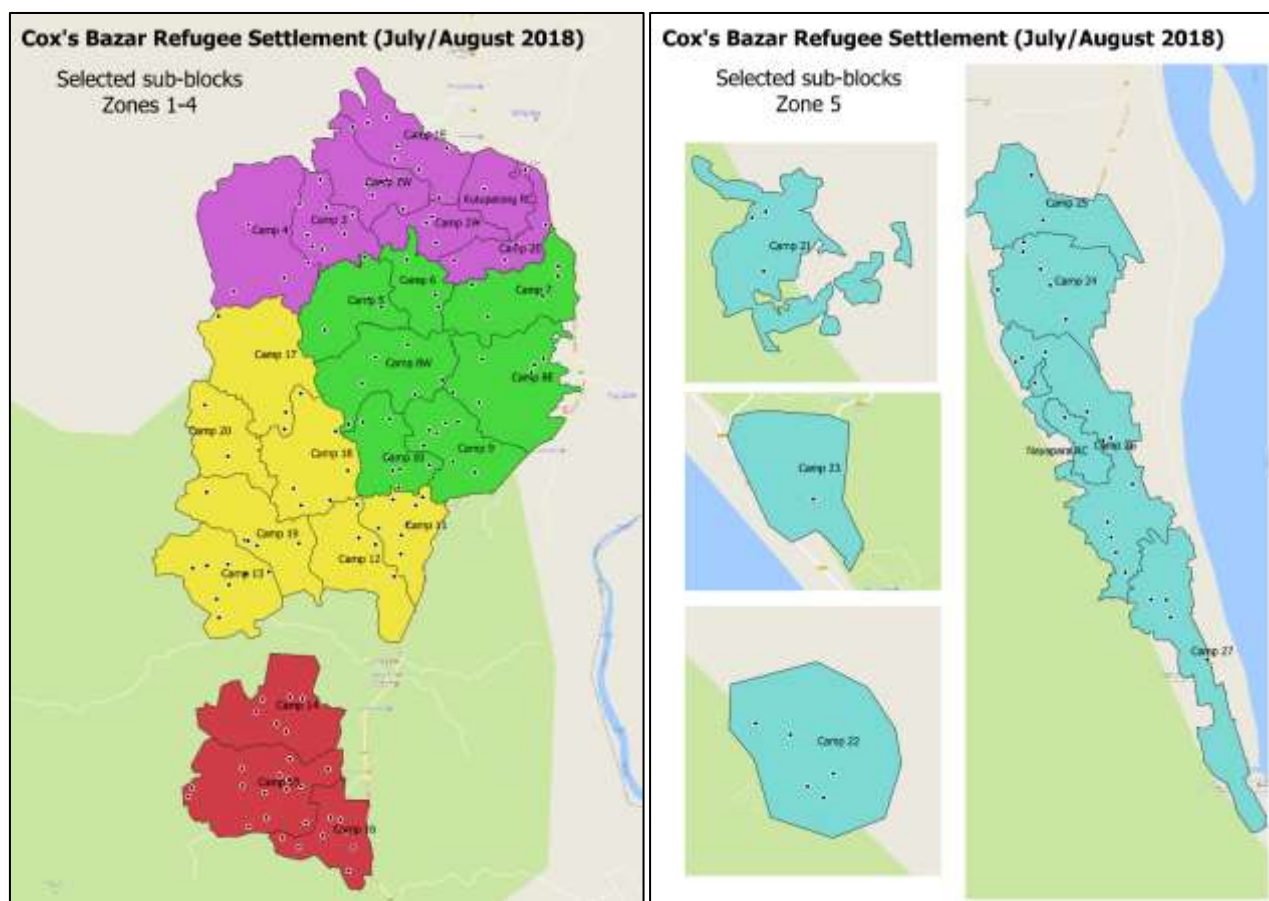
A list of sub-blocks in each SLEAC zone was obtained and stratified first by camp and then by sub-block. Each sub-block was numbered. The sample sub-blocks were then selected from the list as follows:

- A sampling interval was calculated by dividing the total number of sub-blocks in the SLEAC zone with the number of sub-blocks to visit (based on the OTP coverage classification sample size).
- The first sub block was selected based on a random number (which fell between 1 and the sampling interval)

- Subsequent sub-blocks were selected by adding the sampling interval to the first selected sub-block in the list, then the second, then the third etc, until the required number of sub-blocks had been selected.

The selected sub-blocks are shown as black circles on Maps 4 and 5. A full list of selected sub-blocks is also available in Annex 1.

Maps 4 and 5: Selected sub-blocks for SLEAC assessment in Cox's Bazar refugee settlements, all Zones



2.3.7. IN-COMMUNITY CASE FINDING FOR SAM AND MAM CASES

When the sub-blocks had been selected, assessment teams visited each sub-block to conduct exhaustive in-community case finding of all eligible cases in order to record their anthropometric details and determine if they are enrolled or not enrolled in the relevant treatment programme.

Target population and case definition: The target population for the assessment was children aged 6-59 months in the selected sub-blocks.

Teams conducted door to door sampling in order to identify “cases”. Door to door sampling is the recommended sampling methodology to use when attempting to identify MAM cases.

Case definition: During the Cox's Bazar SLEAC assessment, a case includes any child in the target population that is SAM or MAM at the time of the survey and/or any child that is enrolled in an Outpatient Therapeutic Programme (OTP) or Therapeutic Supplementary Feeding Programme (TSFP) at the time of the survey.

Verification of age: To determine the age of identified children, the survey teams first asked if the carer can show them a registration card, ID card, EPI card or nutrition programme treatment card. If

the carer could not provide any of these and could not provide an accurate age for the child, the survey team used a key events calendar to determine the age of the child.

Identification of SAM and MAM cases: SAM and MAM cases were identified by MUAC, presence of oedema and/or by weight-for-height Z-score. During a coverage assessment, cases are usually identified by data collection teams based on the protocol for the identification and referral of acutely malnourished cases in use at the time of the assessment. At the time, the protocol in use for most of the Cox's Bazar camps was for all children identified with a MUAC measurement of less than 125mm (known as the "cut off"), or for all children with signs of oedema, to be referred to OTPs for their Z score to be calculated based on their weight and height measurements. The cut off had been increased to 135mm in some camps in order to identify a greater number of acutely malnourished children.

However, for the SLEAC assessment in the Cox's Bazar refugee settlements, the ATWG decided that it was necessary to calculate the Z-scores of all children with MUACs less than 140mm. Therefore the data collection teams carried height boards and scales and recorded the weight and height measurements of all children that fell under 140mm. This cut off was used because during the previous SMART assessment⁷ in the camps (which took place in April/May 2018), a high proportion of SAM and MAM cases had been identified who had MUAC measurements exceeding 125mm but who were classified as SAM or MAM by WFH Z-score⁸.

The case definitions for the identification of SAM and MAM cases during the SLEAC assessment are summarised in Table 5.

Table 5: Case definitions for SAM and MAM cases during Cox's Bazar refugee settlements SLEAC assessment, July 2018

	MUAC	Oedema	Z-score
SAM case (any of)	<115mm	+, ++, +++	<-3
MAM case (any of)	115-124mm	No oedema	-2 to -3

The child's Z-score was determined using the paper based "WFH Z-score calculation tool". Based on the three anthropometric measurements listed above, the survey team then classified each child as SAM, MAM or Well-nourished.

Confirmation of enrolment in OTP or TSFP: Carers of cases who identified their child as being enrolled in an OTP or TSFP needed to confirm using the following proof outlined in Table 6.

⁷ Emergency Nutrition assessment Round 2 in Refugee Camps, Cox's Bazar, Bangladesh in April/May 2018

⁸ A review by ACF of the results from the previous rounds of SMART surveys in Cox's Bazar refugee settlements found that between 60.8% and 76.2% of GAM cases would have been missed if identified uniquely by MUAC.

Table 6: Methods of confirmation for covered OTP and TSFP cases during Cox's Bazar refugee settlements SLEAC assessment, July 2018

OTP	TSFP
OTP treatment card OR A full packet of RUTF OR Confirmation from a Community Nutrition Volunteer (CNV)	TSFP treatment card OR A full packet of WSB++ and confirmation from the carer that he or she collects new packets from the health facility every 2 weeks OR Confirmation from a CNV

If it was not possible to confirm that the child was in the relevant programme then they were considered a non-covered case.

Case classification: There were seven possible classifications of cases as outlined in Table 7.

Table 7: Case classifications during Cox's Bazar refugee settlements SLEAC assessment, July 2018

Case	Description
SAM Cin	A SAM case in the OTP
SAM Cout	A SAM case not in the OTP
SAM Rin	A case that was SAM but who is still in the OTP programme as they have not yet reached discharge criteria
MAM Cin	A MAM case in the TSFP
MAM Cout	A MAM case not in the TSFP
MAM Rin	A case that was MAM but who is still in the TSFP programme as they have not yet reached discharge criteria
WN	A well-nourished child who is not receiving treatment for SAM or MAM

Questionnaires: The carers of all cases listed above (except WN children) were interviewed using structured questionnaires to determine the main reason for enrolment to the relevant programme or the main reason for non-attendance to the programme. These questionnaires were developed on "KoBoCollect" data collection software, translated into Bangla and then downloaded onto tablets. The word versions of the questionnaires are available in Annexes 4 and 5.

The aim of the questionnaire for carers of non-covered cases is for the interviewer to determine the primary reason for non-attendance to the programme. The questionnaire followed the following logic:

1. The first question asked carers: *Do you think your child is sick?* If the response to this question was "No" then the interviewer ended the questionnaire. This is because if the carer was not aware that their child was sick, then asking more questions about the symptoms and perceived illness of the child would have been no longer applicable.
2. If the carer was aware that their child was sick, the interviewer then asked the following questions: *"What symptoms is your child suffering from?"*; *"What illness has caused these symptoms?"*; *"How have you tried to treat this illness or how are you going to treat it?"* and; *"Who made a decision about the choice of treatment?"*. For each of these questions carers could provide multiple responses.
3. The carers were then asked: *Do you know that there is a service at the health facility dedicated to the treatment of malnutrition?* If they answered No to this question, the interviewer ended the questionnaire.

4. If carers were aware that their child was sick and were aware of the existence of a programme where they could receive treatment for malnutrition, they were then asked: *Why didn't you bring your child to the health facility for the treatment?* Interviewers had to select one reason from a list of commonly cited reasons, or they could select "Other" and specify the reason if the reason provided was not on the list.
5. Carers who were aware of the existence of the programme were also asked if their child had been previously enrolled in the programme and how they had been discharged (as a *cured case*, *non-responder* or *defaulter*). If they had defaulted or discharged as a non-responder, further questions were asked as to when and why this had happened.

The aim of the questionnaire for covered cases was to identify who or what had influenced the carer to go to the nutrition centre to seek treatment for their malnourished child.

1. The first question asked the carer about previous enrolment of their child in the relevant treatment programme. If the child had relapsed or defaulted, the interviewer would ask follow up questions to try to understand why.
2. The second question asked if the carer had other children enrolled in the OTP or TSFP.
3. The third question asked: *Why did you decide to enrol your child in the OTP / TSFP programme?* Interviewers had to select one reason from a list of commonly cited reasons, or they could select "Other" and specify the reason.

Data checks: Once data collection in a sub-block had been completed, the team supervisor completed a Sub-block Screening Summary sheet. He/she then crosschecked that the number of questionnaires saved in the tablet reflected the total number of cases identified on the summary sheet. Once this check had been completed and adequate internet connect was available, the survey team supervisors sent the questionnaires to the survey database on KoBoCollect.

The survey coordinator then crosschecked the data on the summary sheets with the data received in the database at the end of every day of data collection.

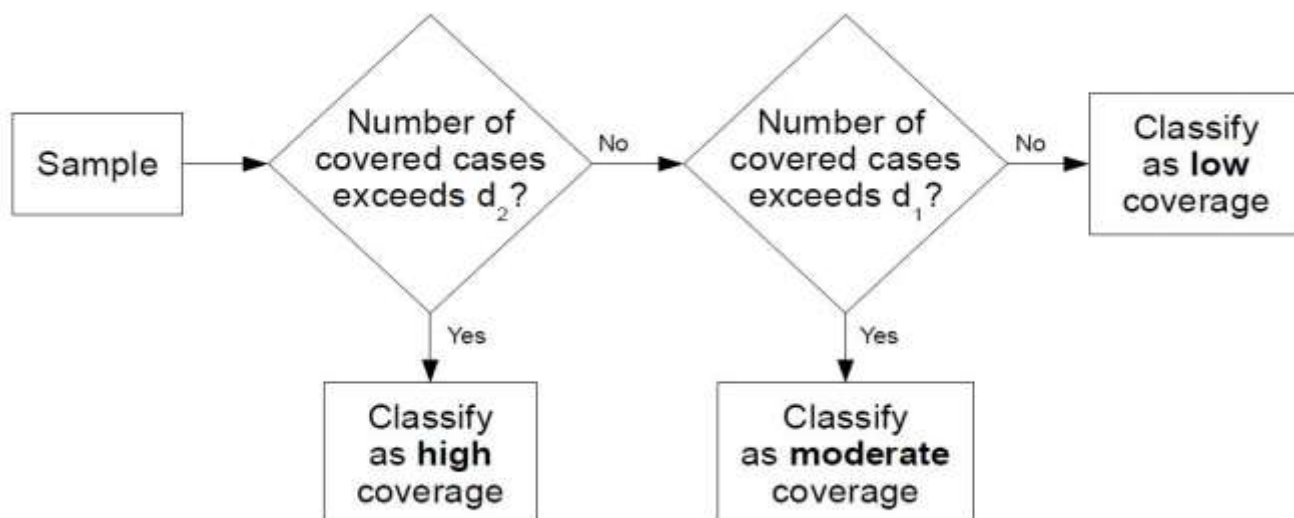
2.3.8. DATA ANALYSIS

Classifying coverage

The SLEAC assessment methodology uses a classification system derived from the "Lot Quality Assurance Sampling" (LQAS) classification technique which enables classification on a two or three-tier scale.

For each service delivery unit visited (SLEAC Zones in the Cox's Bazar SLEAC assessment), the total number of cases found is used to calculate two decision values based on two coverage proportions (in the case of a three tier classification system). As shown in Figure 1, the number of covered cases is compared to the decision values to determine if coverage in that particular service delivery unit can be classified as "High", "Moderate" or "Low".

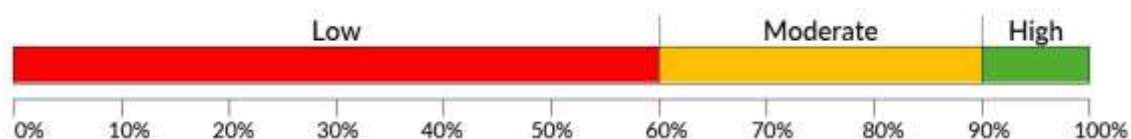
Figure 1: LQAS classification process used during a SLEAC assessment (based on a three tier classification system)



The three-tier classification scale was used for the survey in Cox's Bazar. Considering that the Sphere Project's standard for coverage of CMAM services in camps is 90%⁹, coverage should be considered "high" if coverage exceeds 90%.

Following discussion with the Assessment Technical Working Group and the survey Core Team, the range of scales was agreed as per Figure 2.

Figure 2: Coverage classification scale for July 2018 SLEAC assessment in Cox's Bazar refugee settlements



Single coverage estimator

The coverage classifications are calculated using the single coverage estimator. This estimator replaces the former *Point* and *Period* coverage estimators which have been used in the calculation of coverage in previous years. More information about the calculator can be found in an article in Field Exchange from 2015¹⁰.

The single coverage estimator includes recovering cases that are both in the programme (known as *Rin*) and recovering cases that are not in the programme (known as *Rout*). Therefore the Denominator of the coverage calculation for single coverage includes *Cin*, *Cout*, *Rin* AND *Rout* as shown by the formula below.

$$\text{Single Coverage} = \frac{Cin + Rin}{Cin + Cout + Rin + Rout}$$

The survey teams can find recovering cases that are in the programme during case finding. They are classified as SAM *Rin* or MAM *Rin*. However it is not possible to find recovering cases not in the programme. These are SAM or MAM cases which recover naturally without entering a nutrition treatment programme. These can be estimated using *Cin*, *Cout* and *Rin* using the following formula:

⁹ See <http://www.spherehandbook.org/en/management-of-acute-malnutrition-and-micronutrient-deficiencies-standard-2-severe-acute-malnutrition/>

¹⁰ For more information see Myatt, M et al, (2015) A single coverage estimator for use in SQUEAC, SLEAC, and other CMAM coverage assessments, p.81 Field Exchange 49

$$R_{out} \cong \frac{1}{3} \times (R_{in} \times \frac{C_{in} + C_{out} + 1}{C_{in} + 1} - R_{in})$$

Therefore before classifying coverage it is necessary to calculate the number of recovering cases NOT in the programme (R_{out}).

Calculations for classification of coverage

Once R_{out} is calculated for each zone, the following steps are taken to classify coverage:

1. Based on the denominator of SAM and MAM cases, decision values are calculated using the following equations:

$$d_1 = \left\lfloor n \times \frac{p_1}{100} \right\rfloor \quad d_2 = \left\lfloor n \times \frac{p_2}{100} \right\rfloor$$

d = decision value / p = coverage proportion / n = sample size

For example, if the denominator for SAM cases in a zone is 50 cases and the classification scale of this assessment was used, then decision values would be as follows:

$$d_1 = \left\lfloor 50 \times \frac{60}{100} \right\rfloor = 30$$

$$d_2 = \left\lfloor 50 \times \frac{90}{100} \right\rfloor = 45$$

2. The number of covered cases (the numerator) identified will then be compared to the decision values.
 - If 25 covered cases were found out of the 50, as 25 is inferior to d_1 , coverage would be classified as low.
 - If 40 covered cases were found, as 40 falls between d_1 and d_2 , coverage would be classified as moderate.
 - If 47 covered cases were found, coverage would be classified as high.

(NB. The number of covered cases needs to exceed the decision value to be classified in the category above. E.g. if covered cases = 45 then this would still be considered moderate coverage).

Estimating coverage

With the results of the five SLEAC zones, it is then possible to estimate coverage for the entire survey area.

It is only possible to estimate coverage if the following conditions are met:

- The overall sample size is 96 (or more). This sample size is usually sufficient to estimate coverage with a 95% confidence interval and a precision of 10%
- Coverage is not patchy (i.e. coverage is broadly similar in each of the areas surveyed).

The final coverage estimates were weighted based on the expected number of SAM / MAM cases in each SLEAC zone. Then, to test the patchiness of coverage, a *chi-squared* test was completed on the final coverage estimates of OTP and TSFP services.

Chi-squared test

The chi-squared test compares observed covered cases with expected covered cases. If the observed results are very different to the expected results (determined by variance from a critical value) then coverage will be judged to be "patchy" or inconsistent between SLEAC zones. If coverage is found to

be patchy, then it is still possible to present a coverage estimate, however it must be made clear to the reader that the estimate was found to be patchy.

More details of both of these steps is available in the SLEAC technical reference¹¹ on pages 129-133.

The coverage estimates were calculated using the single coverage estimator and the point coverage estimator. While the single coverage estimator includes recovering cases in the calculation (*Rin* and *Rout*), the point coverage estimator only includes cases that were actively SAM or MAM at the time of the assessment.

The single coverage estimator is the optimal coverage estimator to use to calculate an overall coverage estimate. However the point coverage estimator is useful when it is necessary to disaggregate coverage results (which is done in this report). The point coverage estimate will always be lower than the single coverage estimate as it does not include recovering cases in the programme in the coverage estimate calculation which contribute positively to the final coverage estimate.

Analysis of questionnaires

The responses from questionnaires administered to carers of non-covered cases were analysed to determine the primary reasons why active cases were NOT in the relevant treatment programme for non-covered cases (known as “reasons for non-attendance”).

The questionnaires administered to carers of covered cases were also analysed to identify the primary factors encourage the carers to go to the programme (known as “reasons for attendance”).

Both of these were then analysed and ranked for the entire survey area.

2.3.9. CHALLENGES AND LIMITATIONS

Accuracy of height and weight measurements and diagnosis of cases

Each of the SLEAC data collection teams included measurers who recorded the weight and height measurements of all children with MUAC measurements of less than 140mm. To do this they used height boards (provided by the Action Against Hunger Bangladesh survey team) and digital scales. Weight and height measurements were taken inside the homes of the Rohingya community, often with poor light and in cramped conditions. Therefore there was a risk that errors were made in recording measurements.

However the measurers had all participated in multiple SMART surveys previously and were experienced in working in such conditions. To mitigate the challenging conditions, the measurers used torches, took at least two weight measurements of the same child to ensure that their measurements were accurate and, where possible, placed the scales on concrete floors.

The poor light conditions in the huts also made it difficult for the data collection team leaders to read the WFH Z-score tools in order to determine where on the growth chart the child fell. This led to some situations where children who were not acutely malnourished being referred to OTPs or TSFPs or to acutely malnourished cases not being referred when they should have been. To investigate the impact of this, an investigation was conducted after the end of the assessment into each of the non-covered SAM cases that had been identified and referred during the survey to determine what happened to this case. This key findings from this investigation are presented in Box 1. In summary the investigation found that just 5% of all cases were rejected from the OTP due to an error made by the assessment data collection team (measurement discrepancy or child not eligible for admission as they were outside the age range).

¹¹ The technical reference for the methodology is available here: <http://www.coverage-monitoring.org/wp-content/uploads/2014/10/SQUEAC-SLEAC-Technical-Reference-Oct2012.pdf>

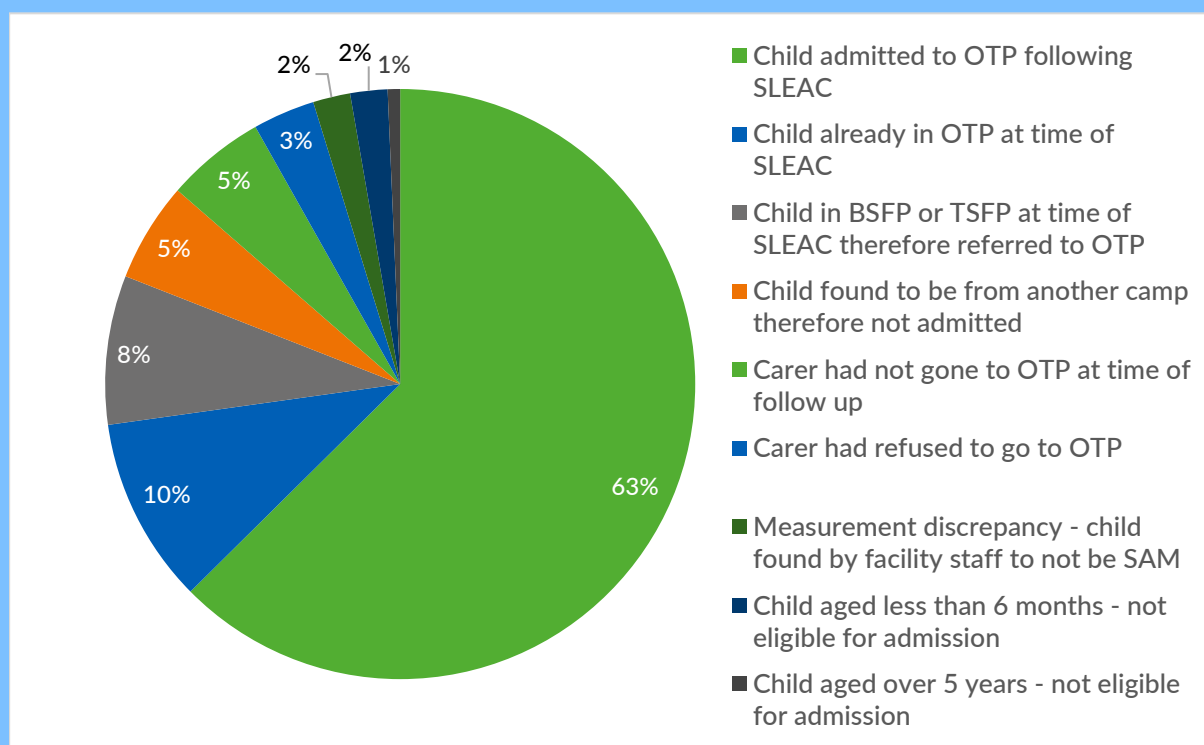
Box 1: Investigation into non-covered SAM cases referred to OTPs

Following the completion of data collection, all non-covered SAM cases identified and referred during the SLEAC assessment were followed up by programme staff to establish whether or not they had been admitted to an OTP. During the assessment, each SAM case was referred by assessment teams to the nearest OTP to them. All OTPs in the assessment area were managed by one of five NGOs (ACF, Concern Worldwide, SARPV, SHED and Save the Children). The follow up of individual cases was conducted after completion of the assessment by programme staff from NGOs.

Out of the 167 non-covered SAM cases (SAM Cout) identified, 147 were identified and referred to OTPs during the assessment. The 20 that were not identified and referred, were “missed” by data collection teams during the assessment due to errors in interpreting the WFH Z-score tool. The assessment coordination team later confirmed these cases as SAM based on the anthropometric measurements recorded by teams. However nearly all (18) of those that were missed were referred to TSFPs during data collection. As such they *should* have been identified as SAM on arrival at TSFPs and referred to the nearest OTP (although no analysis of these children was done to confirm that this happened).

Of the 147 remaining SAM cases that were identified as “SAM Cout” and referred to OTPs during the assessment, programme staff from the five NGOs followed up and categorised each child. A summary of the results is shown in Figure 3. Detailed results by NGO are in Annex 9.

Figure 3: Summary of non-covered SAM cases referral investigation



As shown by Figure 3, the majority of non-covered SAM cases identified were successfully admitted to OTPs. However it was found that 10% of the referred cases were already enrolled in the OTP. A further 8% were found to be in the TSFP or BSFP at the time of the assessment indicating that either the condition of the child had deteriorated since the previous visit or that the TSFP staff had not been recording the weight and height measurements during the bi-monthly visits of the child to the TSFP.

5% of cases referred (8 children) were not admitted to the OTP as they came from a different catchment area. A further 8% had not gone to the OTP (at the time the follow up had been conducted) or had refused to go to the OTP.

Just 5% of all cases were rejected from the OTP due to an error made by the assessment data collection team (measurement discrepancy or child not eligible for admission as outside of age range).

However 10% of supposed non-covered SAM cases were found to already be enrolled in an OTP (suggesting that the carer had claimed that their child was not covered in order to get more rations) and 8% were enrolled in TSFP or BSFP (suggesting that TSFP / BSFP staff were not calculating the Z-scores of all children in their programmes using weight and height measurements). A further 5% of referred cases had been rejected from the OTP as they lived in outside of the programme's catchment area which suggests.

Based on the gender, weight and height measurements entered into the tablets, the assessment coordination team were also able to verify the Z-scores recorded by the teams in the refugee settlements after the data had been submitted to the KoBoCollect database. Out of the 4,150 child details recorded, they found that data collection teams had made errors in calculating the Z-score for 135 children (3.3%).

Differentiating between children in TSFP and BSFP: At the time of the SLEAC assessment, beneficiaries of both the BSFP and TSFP were receiving WSB++. In many camps, the same beneficiary treatment cards were used by TSFP and BSFP. Therefore it was challenging during the SLEAC assessment for the data collection teams to determine if a child was in the TSFP or whether they were a beneficiary of the BSFP.

To mitigate this risk, the data collection team supervisors (many of whom had previously been TSFP or BSFP supervisors) decided that the best way to verify which programme the child was in was to ask the carer with what frequency they collected their rations. If they said that they collected the rations every two weeks, this an indication that the child was in the TSFP. If they said that they collected rations every four weeks, this indicated that they were in the BSFP.

Despite this, there was a risk during the survey that mistakes were made in differentiating between a covered TSFP case and a case in the BSFP.

2.4. QUALITATIVE INVESTIGATION METHODOLOGY

2.4.1. OVERVIEW OF METHODOLOGY

A qualitative investigation took place in parallel to the SLEAC assessment. The qualitative investigation aimed to identify and investigate key themes relating to community perceptions of malnutrition and the services available to treat it in the survey area. It would not have been possible to collect detailed qualitative data from the carers of SAM and MAM cases during the SLEAC assessment owing to the large number of respondents and the limited time available. Therefore the qualitative investigation involved a separate team of investigators gathering more detailed information from a greater range of key informants.

The results aim to compliment the results of the SLEAC assessment to help service providers in Cox's Bazar refugee settlements to refine and improve community outreach strategies in order to improve service uptake.

2.4.2. AREA OF INVESTIGATION

The qualitative investigation took place across all SLEAC zones area in purposively selected sub-blocks. Four sub-blocks were selected in each SLEAC zone and survey teams spent two days per zone completing data collection. The sub-blocks were selected based on the results of the SLEAC assessment (which had taken place in the zone one or two days before). The assessment coordinator selected one sub-block with relatively high coverage and one with relatively low coverage in order to gather a range of responses and perspectives from the community.

2.4.3. INVESTIGATION TEAM

The qualitative investigation was completed by two teams of investigators. Each team contained 1 team leader and 2 or 3 investigators.

2.4.4. TIMELINE OF THE INVESTIGATION

The investigation included 10 days of field work and 2 days of preparation and analysis.

2.4.5. TRAINING

One day of training and preparation was given by the Global Coverage Advisor before the start of the investigation.

The training included:

- Basic principles of qualitative data collection
- Review of questionnaires
- Interview and group discussion practice
- Data analysis techniques

2.4.6. TARGET POPULATION

The investigation teams conducted focus group discussions and semi-structured interviews with a range of different key informants in each selected sub-block including female community members, male community members, carers of acutely malnourished children, community leaders, religious leaders and community volunteers.

At the start of the investigation the assessment coordinator planned the target key informants for the investigation teams to locate in each sub-block in order have a representative sample of different key informants across the sub-blocks visited.

On arrival in communities (or before arrival) the investigation teams contacted the mahjee¹² of the community to ask them to locate and prepare the key informants necessary for the investigation.

2.4.7. DATA COLLECTION

The investigation teams conducted three focus group discussions/semi-structured interviews per day in each selected sub-block with three different key informants or groups of key informants.

Table 8 summarises the sub-blocks visited and number of key informants reached during the qualitative investigation.

¹² The “mahjee” is the Rohingya name for the leader of the sub-block

Table 8: Summary of blocks visited and of key informants who participated in the qualitative assessment

Zone	Camp Name	Local Block Name	SAM Carers	MAM carers	Group of women	Group of men	CNV	Block leader	Imam	TOTAL
1	Camp 1E	F-C2		5		5		1		11
	Camp 2E	A3	1		6			1		8
	Camp 3	DD19	4			6			1	11
	Camp 4	AA (006)		2	6			1		9
2	Camp 7	E1		3	5		1		1	10
	Camp 8E	B79	1			6	1			8
	Camp 9	F4	3		6			1		10
	Camp 10	G8		3		8			1	12
3	Camp 12	G4		4		5		1		10
	Camp 13	C24	2		6		1			9
	Camp 19	B1	3			6				9
	Camp 18	L9		3	5			1		10
4	Camp 16	A9		3	5		1			10
	Camp 15	D6	2			6	1			9
	Camp 14	H8	5			5	1		1	12
5	Nayapara	E3	7		4	3	1	1		16
	Camp 26	B6	3				2	1		6
	Camp 25	D3	3			5		1		8
	Camp 24	C10, F		3	8				1	12
	Camp 22	D2		3		5			1	9
Total FGDs / interviews conducted			11	9	9	11	8	9	6	63
Total key informants			34	29	51	60	9	9	6	198

2.4.8. TOOLS

The investigation teams used interview guides to guide their focus group discussions or interviews. The interview guides were tailored to the key informant being interviewed. A summary of the themes included in each interview guide are summarised in Table 9.

Table 9: Summary of themes included in interview guides

Interview Guide	A	B	C	D
Key informant/s	Carers of SAM and MAM cases	Groups of men and women	CNVs	Community leaders and Imams
Awareness and perception of malnutrition	✓	✓	✓	✓
Awareness and perception of CMAM programme	✓	✓	✓	✓
Quality of service at nutrition programme	✓		✓	
Decision making at household level	✓		✓	
Reasons for non-coverage / defaulting	✓	✓		✓
Sensitisation and screening	✓	✓	✓	✓
What is their role in the community			✓	✓
Community decision making mechanisms and communication channels				✓

These guides were translated into Bangla prior to the start of the survey. The investigation team then recorded the responses to the focus group discussions directly onto the guides.

When referring to “nutrition treatment centres” and “outreach activities”, the interviewers did not specify which programmes (OTP, TSFP or BSFP) they were referring to, unless it was with a group of

SAM or MAM carers. It was not expected that the other key informants interviewed would be able to differentiate between the different services. Therefore in most cases, the responses refer to “general” nutrition services and outreach activities in the camps.

2.4.9. DATA ANALYSIS

Data analysis took place as follows:

1. After each discussion/interview, the investigation teams reviewed the responses from the discussion/interview in order to identify positive and negative factors relating to the coverage of the CMAM programme which the relevant key informant had raised during the interview.
2. At the end of the day, once they had returned to Cox’s Bazar, the investigation teams then added these factors to flipcharts arranged by theme and added information about which key informant had raised it and in which sub-block the factor had been raised. In cases where the same factor had previously been mentioned by another key informant in a different location, the teams would list the key informant (identified by acronyms) and location alongside the factor. This process was known as triangulation and enabled the investigation team to identify frequently mentioned factors during and at the end of data collection.

The factors were classified under the following themes:

- Awareness, knowledge and perception of malnutrition
- Health seeking behaviour and knowledge of nutrition treatment services
- Community outreach activities
- Quality of care in nutrition centres
- Other factors (relating to access or community behaviours)

At the end of the qualitative investigation, the Global Coverage Advisor recorded and grouped all of the factors and triangulation and arranged them, by theme, into consolidated lists of positive and negative factors affecting coverage.

2.2.10. CHALLENGES AND LIMITATIONS

Training time with Bangla interview guides: Owing to time constraints, it was not possible to translate the interview guides for the qualitative investigation prior to the one day training with the investigation teams. As such, the qualitative investigators were unable to practice with the Bangla interview guides during the training.

This therefore led to challenges during the first two days of data collection in the camps such as excessive interview / group discussion time and lack of familiarity of the investigators with the questions on the interview guides.

However after the second day of data collection, the interviewers became more familiar with the questions and so we able to complete focus group discussions more quickly and to collect quality responses to the questions included in the investigation.

Capacity of investigators to understand and speak English: A key part of the qualitative investigation is for the investigators to synthesize and feed-back their findings to the survey coordinator at the end of the day of data collection. However this was found to be a challenge as the investigators had limited English. As such, the feed-back process took longer than expected. However with the help of the qualitative team investigators who were able to interpret the findings, this problem was reduced over the course of the investigation.

3. SLEAC RESULTS

3.1. INTRODUCTION

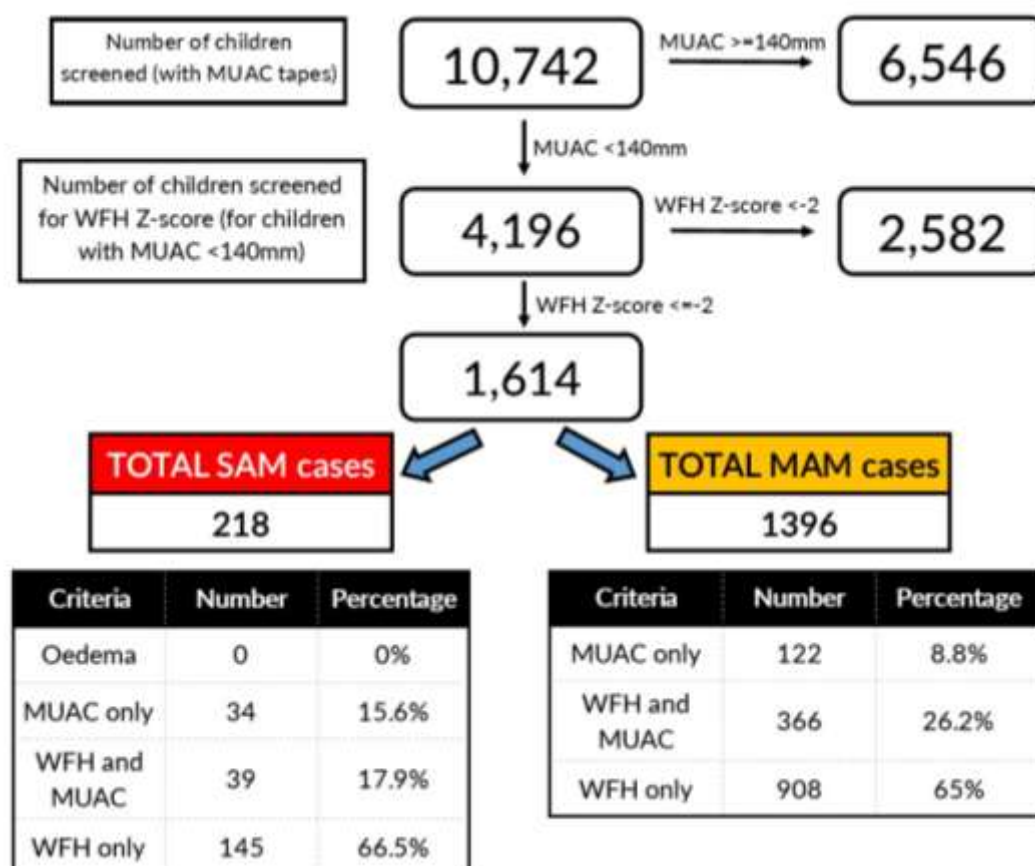
The SLEAC assessment field teams succeeded in visiting all 172 of the selected sub-blocks in the 13 days allocated to data collection in the Cox's Bazar refugee settlements.

This section summarises the main findings of the SLEAC assessment. Firstly, the overall anthropometric, age and gender data are presented. Secondly the results of the OTP coverage assessment and the TSFP coverage assessment results are presented separately and disaggregated by zone.

3.2. ANTHROPOMETRIC DATA OF CHILDREN SCREENED DURING THE SLEAC ASSESSMENT

As explained in the methodology section, during the SLEAC assessment, the field teams set out to locate all SAM and MAM cases in the selected sub-blocks. To do this, they measured children using MUAC tapes, testing for signs of oedema and measuring height and weight of children with MUACs of less than 140mm in order to calculate their Z-score. The results of the anthropometric measurements for all zones and the numbers of SAM and MAM cases identified are summarised in Figure 4.

Figure 4: Summary of anthropometric data collected during Cox's Bazar SLEAC assessment, July/August 2018



The data in Figure 3 shows the anthropometric results of children screened during the SLEAC assessment. No cases of oedema were found. It is important to note that MUAC screening was NOT

exhaustive for children aged 6-59 months in the selected sub-blocks. Children were only screened with MUAC tapes if the assessment teams suspected that they had a MUAC close to or below 140mm. If the child appeared well-nourished, they were not measured by the measurers. Therefore the results cannot be used as proxy indicators of SAM or MAM prevalence.

The tables at the bottom of Figure 4 disaggregate the SAM and MAM cases by admission criteria. For example, out of all of the SAM cases identified, 34 cases (15.6%) were SAM by MUAC only, 39 cases (15.6%) were SAM by MUAC and WFH Z-score and 145 cases (66.5%) were SAM only by WFH Z-score. The results indicate therefore that at least 65% of SAM and MAM cases in the camps were only SAM and MAM by WFH Z-score and not by MUAC.

As the data collection teams recorded the MUAC measurements of cases that were SAM and MAM by WFH Z-score only, it was possible to determine the percentage of cases that would have been missed if only cases with a MUAC of less than 125mm would have been referred to nutrition centres for further screening.

Table 10: Summary of MUAC measurements of SAM and MAM cases only acutely malnourished by WFH Z-score

		SAM cases		MAM cases	
		No. of cases	% of grand total	No. of cases	% of grand total
Total cases identified		218	100%	1396	100%
Only SAM / MAM by WFH		145	66.5%	908	65%
MUAC ranges	115-124mm	81	37.2%	n/a as these cases were classified as MAM by MUAC	
	125-134mm	51	23.4%	608	43.6%
	Greater than 135mm	13	5.9%	300	21.4%

Table 10 indicates that, based on the anthropometric data collected during the SLEAC assessment, if the community nutrition volunteers only referred cases under 125mm for further measurement in nutrition centres, they would miss 29.3% of SAM cases (23.4% + 5.9%) and 65% of MAM cases.

The community referral protocol was under review at the time of the assessment - some of the OTPs and TSFPs had instructed their community outreach teams to refer all cases with MUAC measurements of less than 135mm to nutrition centres for measurement by WFH. However anthropometric results from the SLEAC assessment suggest that partners should consider raising the cut-off to 135mm consistently across all camps.

3.3. GENDER AND AGE RESULTS

The disaggregation of identified cases by gender is shown in Table 11. The results indicate that overall the proportion of girls and boys who are MAM and SAM is similar. However, it should be noted that a greater proportion of non-covered SAM and MAM cases were male.

Table 11: Number and percentage of cases disaggregated by gender

CASE DEFINITION		Male	Female
SAM cases in the OTP	No. of cases	21	30
	Percentage	41%	59%
SAM cases not in the OTP	No. of cases	98	69
	Percentage	59%	41%
SAM recovering cases	No. of cases	16	16
	Percentage	50%	50%
TOTAL SAM	No. of cases	135	115
	Percentage	54%	46%
MAM cases in the TSFP	No. of cases	190	203
	Percentage	48%	52%
MAM cases not in the TSFP	No. of cases	519	457
	Percentage	53%	47%
MAM recovering cases	No. of cases	84	145
	Percentage	37%	63%
TOTAL MAM	No. of cases	793	805
	Percentage	50%	50%

In terms of age, the median age for all children surveyed was 18 months old. Out of the 1452 children who were identified as either MAM or SAM, Table 12 summarises the age breakdown.

Table 12: Number and percentage of SAM and MAM cases disaggregated by age range

	6-23 months	24-59 months	6-23 months	24-59 months
SAM	136	82	62%	38%
MAM	755	614	55%	45%

Table 12 indicates that the majority of SAM cases (62%) are aged 6-23 months, while MAM appears to have a more even split between age ranges.

3.4. OUTPATIENT TREATMENT PROGRAMME COVERAGE RESULTS

3.4.1. INTRODUCTION

This section presents the OTP coverage results from each SLEAC zone and overall. The coverage classification and estimation results are presented first, followed by an analysis of questionnaires completed by carers of non-covered cases. The questionnaires of covered cases are analysed in the final part of the section. Camp by camp case finding results of active and recovering SAM cases are shown in Annex 6 and in the maps in Annex 7.

3.4.2. ZONE BY ZONE CLASSIFICATION

By the end of data collection for the SLEAC assessment, the data collection teams had identified a sufficient number of SAM cases to be able to classify coverage in each of the five SLEAC zones. Table 13 summarises the results by zone. Owing to the fact that the “Single coverage estimator” was used for the calculation of coverage, *Rout* (Recovering cases OUT of the programme) has been calculated.

Table 13: SLEAC assessment results and Rout by Zone

Case definition	SAM Cin	SAM Cout	SAM Rin	SAM Rout	TOTAL
Description	SAM cases in the OTP	SAM cases not in the OTP	OTP recovering cases	Recovering cases not in the programme (calculated)	Cin + Cout + Rin + Rout
Zone 1	7	40	6	10	63
Zone 2	12	36	12	11	71
Zone 3	7	28	3	3	41
Zone 4	18	26	5	2	51
Zone 5	7	37	6	9	59
All zones	51	167	32	34	284

The Total column in Table 13 shows that the sample size set in Table 3 was exceeded for each Zone. Therefore it was possible to classify OTP coverage by Zone and overall (Table 14). The sample size was significantly exceeded in Zones 1 and 2 suggesting that the actual SAM prevalence in these zones is higher than the prevalence estimate used to calculate the sample size (1.5%).

Table 14: OTP coverage classifications by zone and overall

	TOTAL (n)	Covered cases (c)	Decision rule 1 (d ₁)	c>d ₁ ?	Decision rule 2 (d ₂)	c>d ₂ ?	Coverage classification
	Cin+Cout+Rin+ Rout	Covered cases (Cin+Rin)	$d_1 = n \times (\frac{60}{100})$		$d_2 = n \times (\frac{90}{100})$		
Zone 1	63	13	37	No	56	No	Low
Zone 2	71	24	42	No	63	No	Low
Zone 3	41	10	24	No	36	No	Low
Zone 4	51	23	30	No	45	No	Low
Zone 5	59	13	35	No	53	No	Low
All zones	285	83	168		253		Low

Table 14 shows that the OTP coverage classification was low (in the range of 0-60% coverage) for each of the Zones and overall.

3.4.3. OVERALL OTP COVERAGE

The total sample size of SAM cases (including Rin and Rout) was 285 cases. As this exceeds 95, it is possible to estimate OTP coverage for all zones assuming that coverage is homogenous or not patchy. To test patchiness, a chi-squared test was completed with the assessment results. The calculations for this are shown in Table 15.

Table 15: Chi-square test calculations for OTP coverage results

	Total (n)	Observed covered cases (O)	Expected covered cases (E)	O – E	(O – E) ²	$\frac{(O - E)^2}{E}$
Zone 1	63	13	18.35	-5.35	28.59	1.56
Zone 2	71	24	20.68	3.32	11.04	0.53
Zone 3	41	10	11.94	-1.94	3.76	0.32
Zone 4	51	23	14.85	8.15	66.38	4.47
Zone 5	59	13	17.18	-4.18	17.49	1.02
SUM	285	83	83			7.90

The critical value for five survey areas is 9.49 (more information on in Section 2.3.8). As 7.89 is not greater than 9.49, this indicates that based on the SLEAC assessment results, coverage of OTP services is not patchy in the Cox's Bazar refugee settlements.

The overall OTP coverage estimate was then weighted based on the expected number of SAM cases in each zone. The weighting calculations are shown in Table 16.

Table 16: Weighting calculations for OTP coverage

	Total population (a)	% 6-59 months (b)	SAM prevalence (c)	Estimated no. of SAM cases (N)	Weighting factor (w)	Estimated coverage	Weighted coverage
				$N = a \times b \times c$	$w = \frac{N}{\sum N}$	$\frac{c}{n}$	$w \times \frac{c}{n}$
Zone 1	219,572	15%	1.50%	494	0.24	0.21	0.050
Zone 2	229,945	15%	1.50%	517	0.26	0.34	0.086
Zone 3	173,827	15%	1.50%	391	0.19	0.24	0.047
Zone 4	98,493	15%	1.50%	222	0.11	0.45	0.049
Zone 5	177,764	15%	1.50%	400	0.20	0.22	0.044
SUM	899,601			2,024			0.277

Finally, the calculations for the 95% upper and lower confidence interval for this estimate are shown in Table 17.

Table XX: Calculation of confidence interval for OTP coverage

	w	w ²	$\frac{c}{n}$	$1 - \frac{c}{n}$	$\frac{w^2 \times \frac{c}{n} \times \left(1 - \frac{c}{n}\right)}{n}$
Zone 1	0.24	0.06	0.21	0.79	0.00015
Zone 2	0.26	0.07	0.34	0.66	0.00021
Zone 3	0.19	0.04	0.24	0.76	0.00017
Zone 4	0.11	0.01	0.45	0.55	0.00006
Zone 5	0.20	0.04	0.22	0.78	0.00011
SUM					0.00070

The 95% confidence interval (CI) is:

$$95\% \text{ CI} = 0.277 \pm 1.96 \times \sqrt{0.00070} = \{22.49, 32.87\}$$

The overall OTP coverage estimate using the Single Coverage Estimator is therefore:

27.7% (95% CI: 22.5-32.9%)

OTP Point coverage estimate

Based on the results of the SLEAC assessment it is also possible to calculate the coverage using the point coverage estimator. The overall OTP coverage estimate using the Point Coverage Estimator is:

21.5% (95% CI: 16.1-27.0%)

This estimate was calculated using the same calculations as the single coverage estimator. The estimate has also been weighted and is confirmed to not be “patchy” with a chi-squared test.

It is possible to calculate different point coverage estimates based on the MUAC measurements of the cases identified during the survey. Table 18 indicates the different point coverage estimates for SAM

cases identified with a MUAC of less than 125mm and those with a MUAC equal to or more than 125mm.

Table 18: OTP coverage estimates for SAM cases identified with MUAC measurements less than 125mm and equal to or more than 125mm

MUAC measurement	<125mm	≥ 125mm	ALL SAM CASES
Number of cases	153	65	218
Proportion of total cases identified	70%	30%	100%
Point coverage estimate	30.7%	6.2%	21.5%

The results have been disaggregated based on MUAC measurements below and above 125mm which is line with the MUAC screening protocol in use at the time of the assessment.

These results show that the coverage of SAM cases with MUAC measurements of less than 125mm is higher than the coverage of SAM cases with MUAC measurements of greater than 125mm. However it is only marginally higher than the overall coverage estimate (30.7% compared to 21.5%). It still shows that only 3 out of 10 SAM cases with MUACs less than 125mm are being admitted to OTP services.

This indicates therefore that coverage of OTP services is similar based on the currently used cut off of <125mm and based on the cut off used during the SLEAC assessment (<140mm). Nutrition partners believed that the very low coverage estimate was largely due to the fact that a higher cut off had been used during the SLEAC assessment. This data proves that this is not the case.

3.4.4. ANALYSIS OF RESPONSES TO QUESTIONNAIRES FOR OTP CASES

Introduction

Each carer of a non-covered and covered case was interviewed to determine the primary reasons for non-attendance (for non-covered cases) and the primary reasons for attendance to the programme (for covered cases). This section summarises the responses provided by the carers of the SAM cases identified during the SLEAC assessment.

Analysis of questionnaires for non-covered SAM cases

147 questionnaires were completed with carers of non-covered SAM cases.

Awareness that child is sick: The proportion of carers that responded “Yes” and “No” to the question *Are you aware that your child is sick?* is presented in Figure 5.

Figure 5: Responses to question “Are you aware that your child is sick?”, Carers of non-covered SAM cases (Total respondents=147)

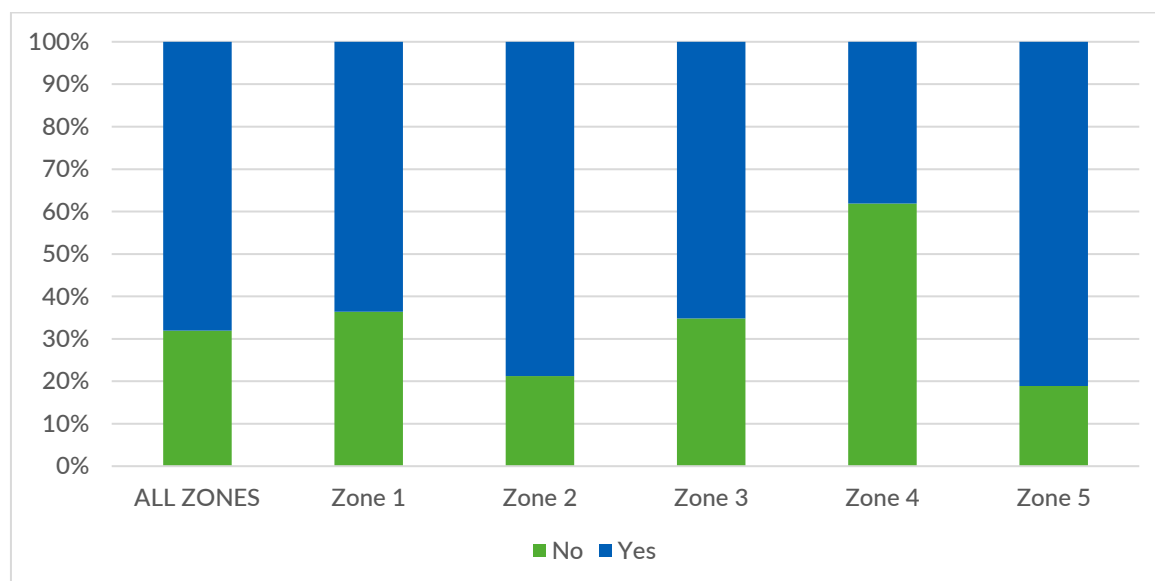
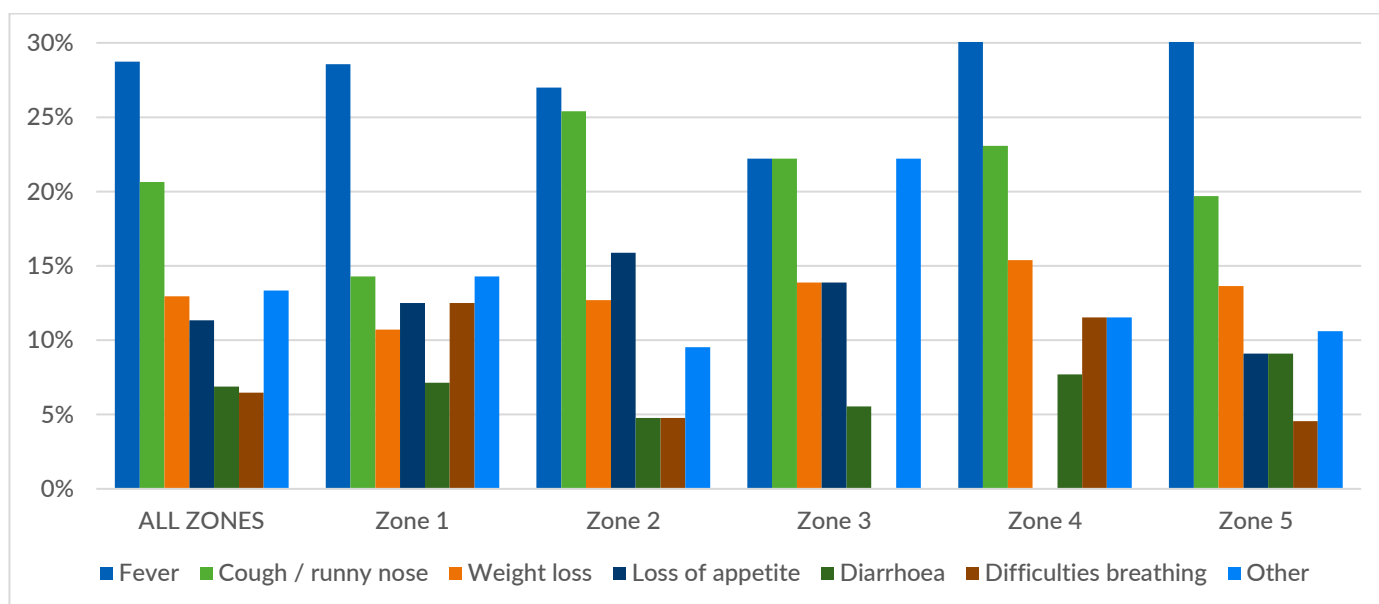


Figure 5 shows that 68% of carers of non-covered cases interviewed were aware that their child was sick, while 32% were not aware. With the exception of Zone 4, 20-35% of carers of non-covered SAM cases did not know that their child was sick. In Zone 4 however, 62% of carers of non-covered cases did not know that their child was sick. This suggests that in parts of Zone 4, there is a lack of awareness of child illness. However out of all zones, Zone 4 had the highest coverage of OTP services. Therefore this indicates that community outreach activities are working effectively in some parts of zone 4, but not throughout. On further investigation, coverage was particularly low in Camp 16. Out of the 12 non-covered SAM cases identified, 7 carers were not aware that their child was sick.

Understanding of symptoms of sickness: Figure 6 summarises the responses from the question *What symptoms is your child suffering from?*

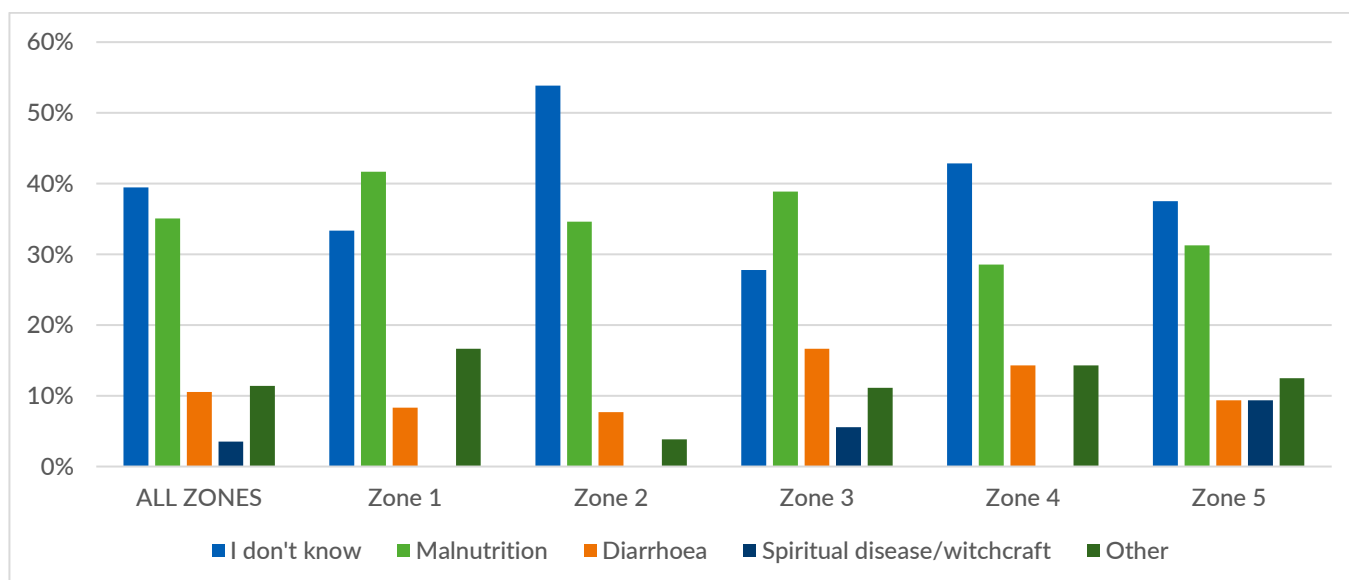
Figure 6: Perceived symptoms of child illness by carers of non-covered cases (Total respondents = 104)



“Fever” was the most common symptom cited by carers followed by “cough/runny nose”. The answers were more or less consistent across zones. However it is interesting to note that “loss of appetite” was not cited as a symptom by any carers in Zone 4.

Perceived cause of sickness: Figure 7 summarises the responses, by zone and overall, of the question *What illness has caused these symptoms?*

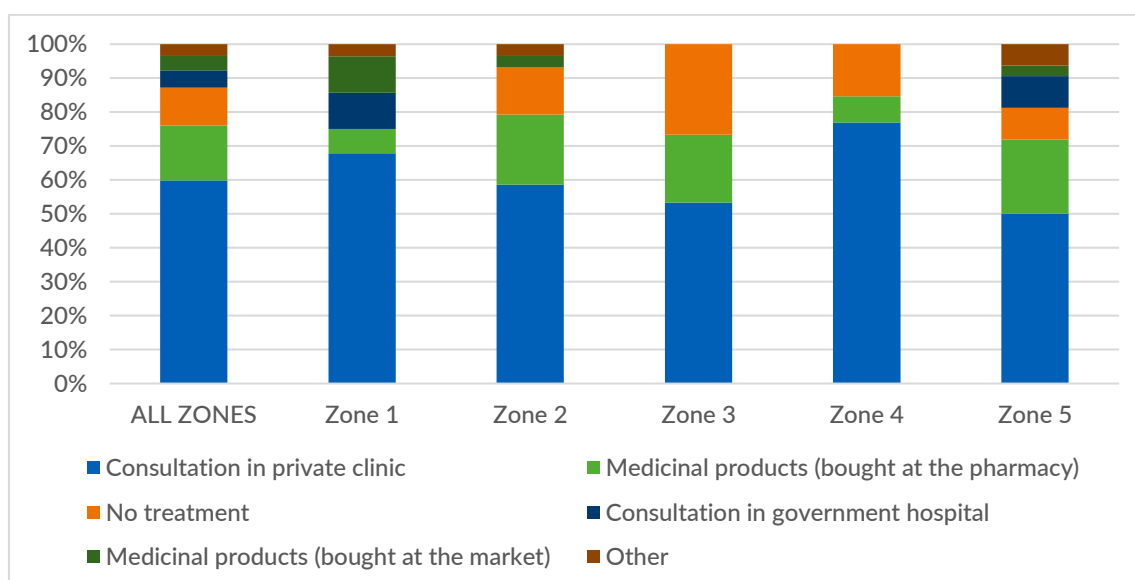
Figure 7: Perceived cause of sickness of non-covered SAM cases by carers (n=104 respondents)



The summary of responses indicate that even if 68% of carers were aware that their child was sick, 4 out of 10 carers did not know what illness they are suffering from. Around 30% of carers were aware that their child were malnourished. Diarrhoea also seems to be a recognised illness. Meanwhile these results indicate that the child's illness was associated with spiritual diseases or witchcraft in Zones 3 and 5 only.

Current or intended course of treatment: Figure 8 summarises the responses to the question, *How have you tried to treat this illness or how are you going to treat it?*

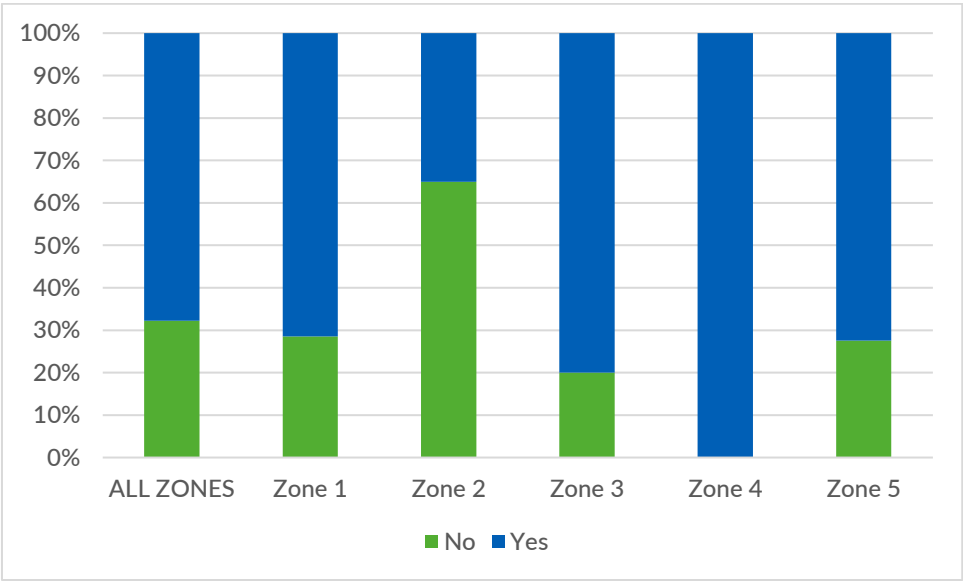
Figure 8: Course of treatment followed or intended for carers of non-covered SAM cases, SLEAC assessment (n=104 respondents)



Consultation at a clinic was most commonly cited (60% of responses), while a further 16% had, or intended to, buy products from the pharmacy. However 1 out of 10 respondents to this question, and nearly a third of respondents in Zone 3, said that they did not intend to take the child for treatment.

Awareness of services to treat acute malnutrition: Their responses to the question *Do you know that there is a service at the health facility dedicated to the treatment of malnutrition?* are summarised in Figure 9.

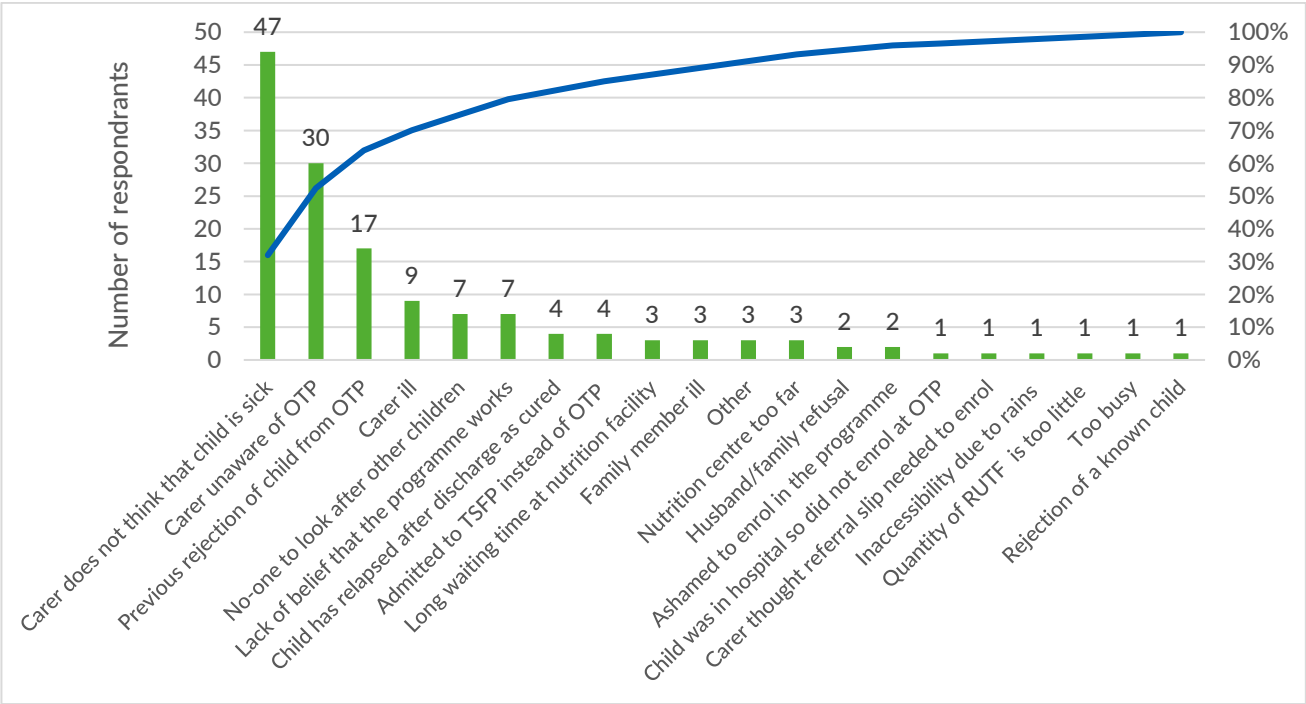
Figure 9: Awareness of services to treat acute malnutrition, carers of non-covered SAM cases (n=93 respondents)



Overall, 68% of respondents said that they were aware of the existence of services to treat malnutrition. However there was variation across the SLEAC zones: only 35% of carers in Zone 2 said that they were aware of available services, while all carers in Zone 4 were aware of available services.

Reasons for non-attendance: 48% of all respondents were aware that they their child was sick and that there was a service available to treat acute malnutrition. Figure 10 ranks the reasons provided by carers as to why they did not take their child to the nutrition centre. This chart also includes the respondents who did not recognise that their child was sick or who were not aware of nutrition services where they could take their child for treatment.

Figure 10: Primary reasons for non-attendance of carers of non-covered SAM cases (n=147)



The blue line in Figure 10 is the cumulative percentage of the reasons for non-attendance. Therefore the first six reasons provided account for about 80% of the total responses.

Together, the first two reasons (Lack of awareness that the child is sick and Lack of awareness of the OTP), account for 52% of the primary reasons for non-attendance for non-covered SAM cases. Of the 47 carers who were not aware that their child was sick, approximately 40% were SAM by MUAC or by MUAC/WFH Z-score and 60% by WFH z-score only. This strongly suggests that sensitisation about the signs and symptoms of malnutrition amongst carers of children under 5 or of pregnant women is inadequate in the camps. Thirty carers of non-covered cases knew that their child was sick, but did not know about the existence of free nutrition services in the camps to take their child for treatment which further suggests that there is not comprehensive coverage of community outreach in the camps. These two factors are often the primary reasons for non-attendance for non-covered cases in programmes that have been established in contexts in the previous 6 months. Therefore seeing as many OTPs and their outreach services had been operating for less than 6 months at the time of the survey, it is not surprising that they are the most commonly cited reasons for non-attendance.

“Previous rejection of child from programme” is a particularly concerning reason as it indicates that carers are being turned away from nutrition programmes. While there is not sufficient information from the responses to identify why this is happening, it is possible to see where this was cited as a reason: 16 of the 17 carers who provided this reason were in Zone 1 (Camps 1E, 2E and 3), Zone 4 (Camp 14 and 15) and Zone 5 (Camps 21, 24, 25 and 27). All but one of the 17 cases were SAM by WFH Z-score and not by MUAC. And so it may be worth investigating further why they were rejected and ensuring that all OTPs have the same measuring equipment. However, whatever the reason, the risk of many carers being rejected from nutrition centres is that they will go back to their communities and advise other carers with SAM cases to not go to the OTP, even if they are referred by community nutrition volunteers.

The next two most common reasons (“Carer sick” and “No-one to look after other children”) indicate that carers do not have family members, friends or neighbours they trust to take the child to the nutrition centres. This could be an indication of the fact that many of the communities have not yet had a chance to build social cohesion and so trust has not been built between neighbours. It may also reflect the messages that CNVs pass onto carers (i.e. carers believe that only they can take their child to nutrition centres to receive treatment).

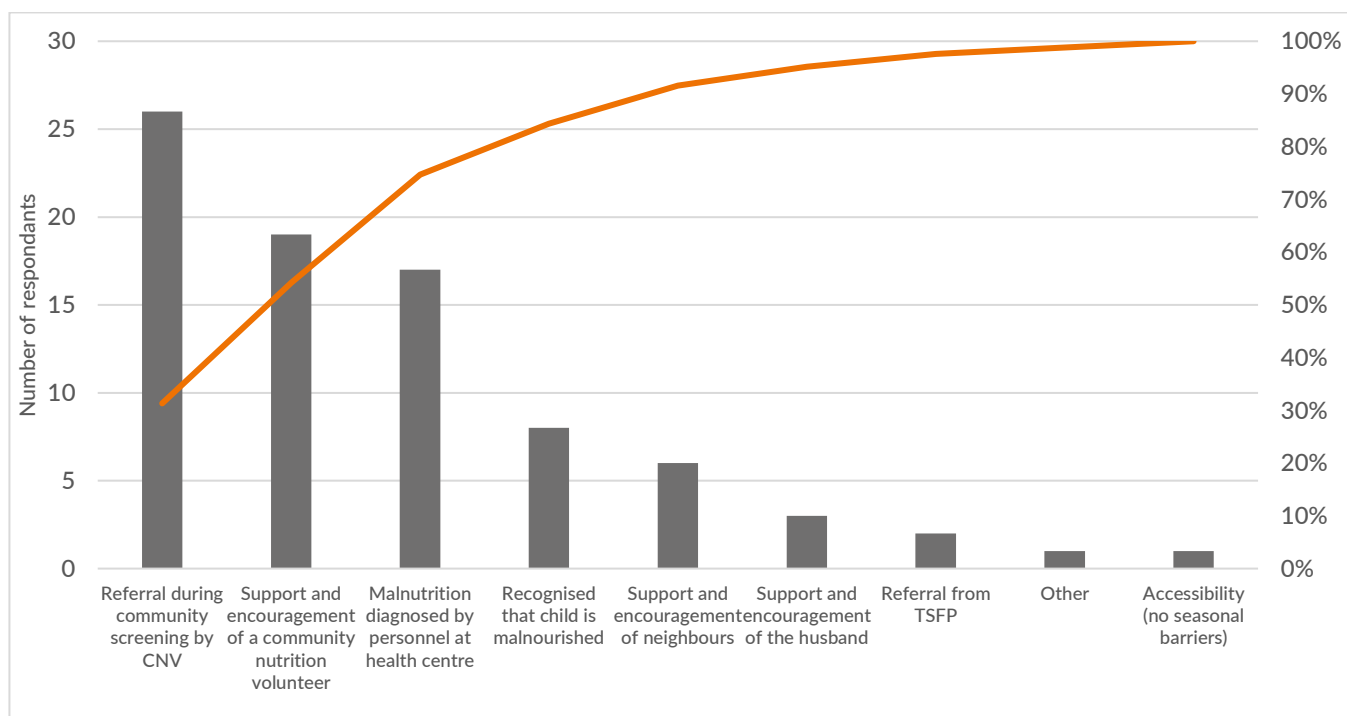
A “lack of belief that the programme works” was also frequently cited and could be a reflection of the information passed onto carers when they are receiving RUTF at nutrition centres. It could indicate that carers are not feeding all of the required RUTF to their SAM children and so they do not perceive an improvement in the health of their child. As such, if sensitisation was improved in nutrition centres and carers understood clearly that the product was only for the SAM child, more cases would recover in a shorter space of time.

Analysis of questionnaires for covered SAM cases

For cases that were identified that were in the OTP at the time of the survey (either active cases (*Cin*) or recovering cases (*Rin*)), the assessment teams conducted a short questionnaire to identify why their carers had decided to enrol.

83 questionnaires were completed. The reasons provided are summarised in Figure 11.

Figure 11: Primary reasons for attendance of SAM cases to OTP (n=83)



The first three reasons provided indicate that community screenings and regular house-to-house screening by CNVs are taking place and are the main methods of recruitment of SAM cases. The third most common reason provided also indicates that passive screening is taking place in health and nutrition centres.

However as the first three reasons account for 75% of all admissions to the programme, these results indicate that the OTP is still heavily reliant on community outreach to locate and admit cases. In future, a preferable situation would be for the next three reasons (Recognition that the child is malnourished, Support and encouragement of neighbour and of husband) to be more commonly cited by carers of covered cases. This would indicate that the community is taking more responsibility for the identification and referral of SAM cases in their blocks and camps. Based on this assessment, these three reasons were cited as the primary reason for attendance for 17 (20%) of covered SAM carers.

3.5. THERAPEUTIC SUPPLEMENTARY FEEDING PROGRAMME COVERAGE RESULTS

3.5.1. INTRODUCTION

This section presents the coverage of TSFPs across the Cox's Bazar refugee settlements and includes analysis of the responses to questions administered by the data collection teams to carers of MAM cases. In the same way as the OTP coverage section, the results are presented overall and by SLEAC zone. Camp by camp case finding results of active and recovering SAM cases are shown in Annex 6 and in the maps in Annex 8.

3.5.2. ZONE BY ZONE COVERAGE ESTIMATES

As predicted, the SLEAC assessment teams identified a much larger sample of MAM cases during the assessment. As explained in the methodology section in Section 2.3.8, if the sample size exceeds 95 cases a service delivery unit (Zone in the case of this SLEAC), it is possible to estimate coverage. The

coverage estimation can still be classified on the scale set out by partners at the start of the survey, but an estimate is preferable to a classification as it provides a more accurate impression of coverage.

The TSFP coverage estimates were also calculated using the Single Coverage Estimator. Therefore it was necessary to calculate “Rout” first. Table 19 shows the achieved samples of each case, “Rout” and the total sample sizes by zone.

Table 19: TSFP coverage MAM coverage estimates

Case definition	MAM Cin	MAM Cout	MAM Rin	MAM Rout	TOTAL
Description	MAM cases in the TSFP	MAM cases not in the TSFP	TSFP recovering cases	Recovering cases not in the programme (calculated)	Cin + Cout + Rin + Rout
Zone 1	71	259	30	35	395
Zone 2	90	213	60	46	409
Zone 3	91	201	51	37	380
Zone 4	91	170	56	34	351
Zone 5	50	133	32	27	242
All zones	393	976	229	179	1777

As the sample sizes are sufficient to estimate coverage directly. These calculations, and the calculations for the confidence interval of each estimate, are shown in Table 20.

Table 20: TSFP coverage confidence interval calculations

	TOTAL (<i>n</i>)	Covered cases (<i>c</i>)	Estimated coverage	$1 - \frac{c}{n}$	<i>a</i>	Interval (<i>b</i>)	Lower CI	Upper CI
	Cin+Cout+Rin+ Rout	Cin+Rin	$\frac{c}{n}$		$\frac{c}{n} \times \left(1 - \frac{c}{n}\right)$	$1.96 \times \sqrt{a}$	$\frac{c}{n} - b$	$\frac{c}{n} + b$
Zone 1	395	101	0.256	0.74	0.00048	0.04	0.213	0.299
Zone 2	409	150	0.367	0.63	0.00057	0.05	0.320	0.413
Zone 3	380	142	0.374	0.63	0.00062	0.05	0.325	0.422
Zone 4	351	147	0.419	0.58	0.00069	0.05	0.367	0.470
Zone 5	242	82	0.339	0.66	0.00093	0.06	0.279	0.398

Therefore the final coverage estimates of TSFP (calculated using the Single Coverage Estimator) and the 95% confidence intervals (CI) are presented in Table 21.

Table 21: TSFP Coverage estimate results by zone

	Estimated coverage	Lower 95% CI	Upper 95% CI
Zone 1	25.6%	21.3%	29.9%
Zone 2	36.7%	32.0%	41.3%
Zone 3	37.4%	32.5%	42.2%
Zone 4	41.9%	36.7%	47.0%
Zone 5	33.9%	27.9%	39.8%

As all of the estimates fall below 60%, coverage can therefore be considered Low for the TSFP services for all zones.

Estimating TSFP for the whole assessment area is the next step. The first step in this process is to test the patchiness of the results across the five zones using a chi-squared test. The calculations for this test are shown in Table 22.

Table 22: Chi-square test calculations for TSFP coverage results

	Total (n)	Observed covered cases (O)	Expected covered cases (E)	$O - E$	$(O - E)^2$	$\frac{(O - E)^2}{E}$
Zone 1	395	101	138.26	-37.26	1388.39	10.04
Zone 2	409	150	143.16	6.84	46.76	0.33
Zone 3	380	142	133.01	8.99	80.81	0.61
Zone 4	351	147	122.86	24.14	582.75	4.74
Zone 5	242	82	84.71	-2.71	7.33	0.09
SUM	1777	622				15.81

The critical value for five survey areas is 9.49. As 15.81 is greater than 9.49, this indicates that coverage of TSFP services across the entire assessment area can be considered patchy (i.e. it is inconsistent). This is due to the particularly low coverage of TSFP services in Zone 1 (25.6%). Calculating the TSFP coverage estimate for the whole assessment area is still possible, however when the coverage estimate is presented, it should be noted that coverage was found to be patchy.

The next step in estimating coverage for the whole assessment area is to weight the Zone coverage estimates to account for population variance between zones. The weighting calculations are shown in Table 23.

Table 23: Weighting calculations for TSFP coverage

	Total population (a)	% 6-59 months (b)	MAM prevalence (c)	Estimated no. of MAM cases (N)	Weighting factor (w)	Estimated coverage	Weighted coverage
				$N = a \times b \times c$	$w = \frac{N}{\sum N}$	$\frac{c}{n}$	$w \times \frac{c}{n}$
Zone 1	219,572	15%	10%	3,294	0.24	0.256	0.062
Zone 2	229,945	15%	10%	3,449	0.26	0.367	0.094
Zone 3	173,827	15%	10%	2,607	0.19	0.374	0.072
Zone 4	98,493	15%	10%	1,477	0.11	0.419	0.046
Zone 5	177,764	15%	10%	2,666	0.20	0.339	0.067
SUM	899,601			13,494			0.341

Finally, the calculations for the 95% upper and lower confidence interval for this estimate are shown in Table 24.

Table 24: Calculation of confidence interval for overall TSFP coverage

	w	w ²	$\frac{c}{n}$	$1 - \frac{c}{n}$	$\frac{w^2 \times \frac{c}{n} \times \left(1 - \frac{c}{n}\right)}{n}$
Zone 1	0.24	0.06	0.26	0.74	0.000029
Zone 2	0.26	0.07	0.37	0.63	0.000037
Zone 3	0.19	0.04	0.37	0.63	0.000023
Zone 4	0.11	0.01	0.42	0.58	0.000008
Zone 5	0.20	0.04	0.34	0.66	0.000036
SUM					0.000133

The 95% confidence interval (CI) is:

$$95\% CI = 0.341 \pm 1.96 \times \sqrt{0.000133} = \{31.85, 36.38\}$$

The overall TSFP coverage estimate using the Single Coverage Estimator is therefore:

34.1% (95% CI: 31.9-36.4%) | Coverage is patchy

TSFP Point coverage estimate

The overall TSFP coverage estimate using the point coverage estimator is:

28.1% (95% CI: 25.6-30.5%) | Coverage is patchy

This estimate was calculated using the same calculations as the single coverage estimator. The estimate has been weighted and is confirmed to be “patchy” with a chi-squared test.

The different coverage estimates based on MUAC measurements less than 125mm and equal to or greater than 125mm are shown in Table 25.

Table 25: TSFP coverage estimates for MAM cases identified with MUAC measurements less than 125mm and equal to or more than 125mm

MUAC measurement	<125mm	≥ 125mm	ALL MAM CASES
Number of cases	472	897	1369
Proportion of total MAM cases identified	35%	65%	100%
Point coverage estimate	35.2%	25.3%	28.1%

Like the OTP coverage results, the results in Table 25 show that more MAM cases with MUAC measurements of less than 125mm are accessing the programme than those with MUAC greater than (or equal to) 125mm. This is logical as it indicates that a higher proportion of MAM cases who fall under the screening cut-off are being identified and referred for admission than those with MUACs above the cut-off. But like the SAM cases, 3 out of 10 MAM cases were covered by TSFP services at the time of the SLEAC assessment in the camps.

However what is surprising is that for those MAM cases who have MUAC measurements equal to or greater than 125mm, point coverage is 25.3%, while for SAM cases with MUAC measurements equal to or greater than 125mm, point coverage is 6.2%.

3.5.3. ANALYSIS OF RESPONSES TO QUESTIONNAIRES FOR TSFP CASES

Introduction

The carers of covered and non-covered MAM cases identified during the SLEAC assessment were interviewed using the same structured questionnaires as the OTP cases. This section summarises the responses provided by the carers.

Analysis of questionnaires for non-covered cases

By the end of the SLEAC data collection, 927 questionnaires had been completed with carers of non-covered MAM cases.

Awareness that child is sick: The proportion of carers that responded “Yes” and “No” to the question *Are you aware that your child is sick?* is presented in Figure 12.

Figure 12: Responses to question “Are you aware that your child is sick?”, Carers of non-covered MAM cases (Total respondents=927)

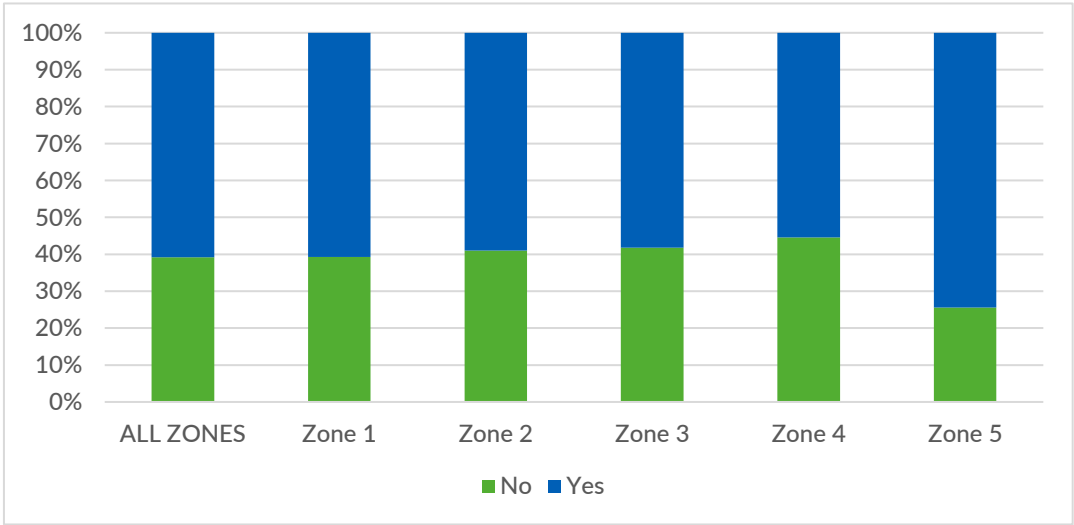
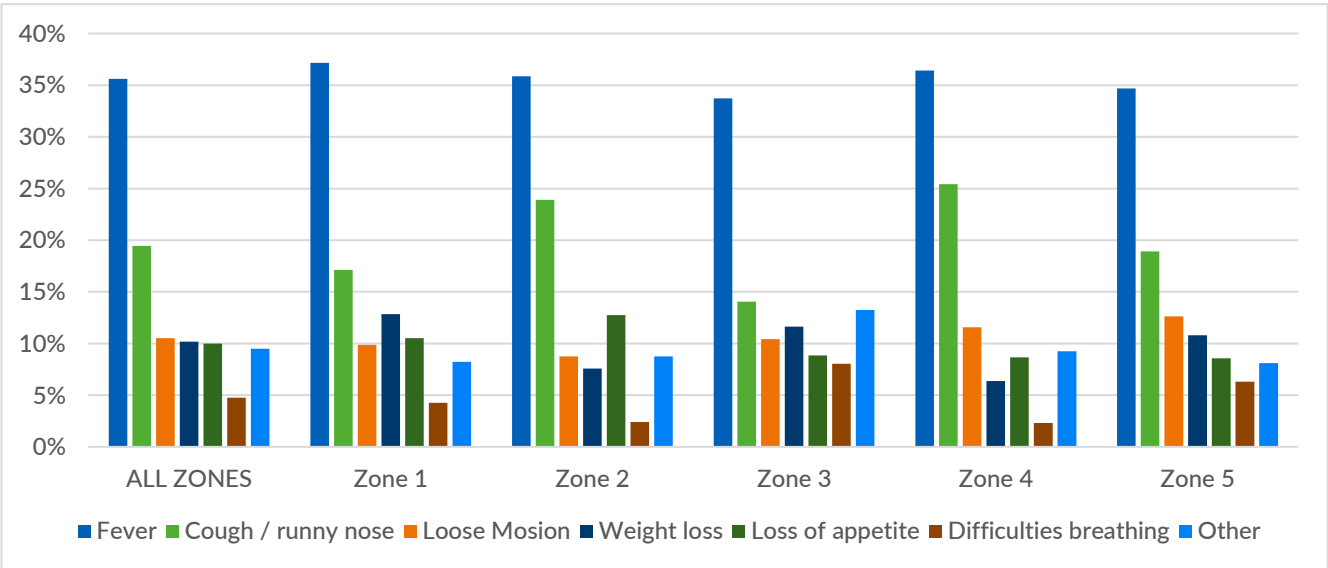


Figure 12 indicates that based on the results of the SLEAC assessment, 4 out of 10 carers of MAM cases are not aware that their child is sick. Compared with the SAM carers, this is a slightly higher proportion (approximately 30% of carers of SAM cases were aware that their child was malnourished). This is not surprising as it can be harder to recognise that a MAM child is sick than a SAM child.

Responses across the Zones were consistent, with the exception of Zone 5, where only 26% of carers did not recognise that their child was sick.

Understanding of symptoms of sickness: Figure 13 summarises the responses from the 564 carers who responded to the question, *What symptoms is your child suffering from?*

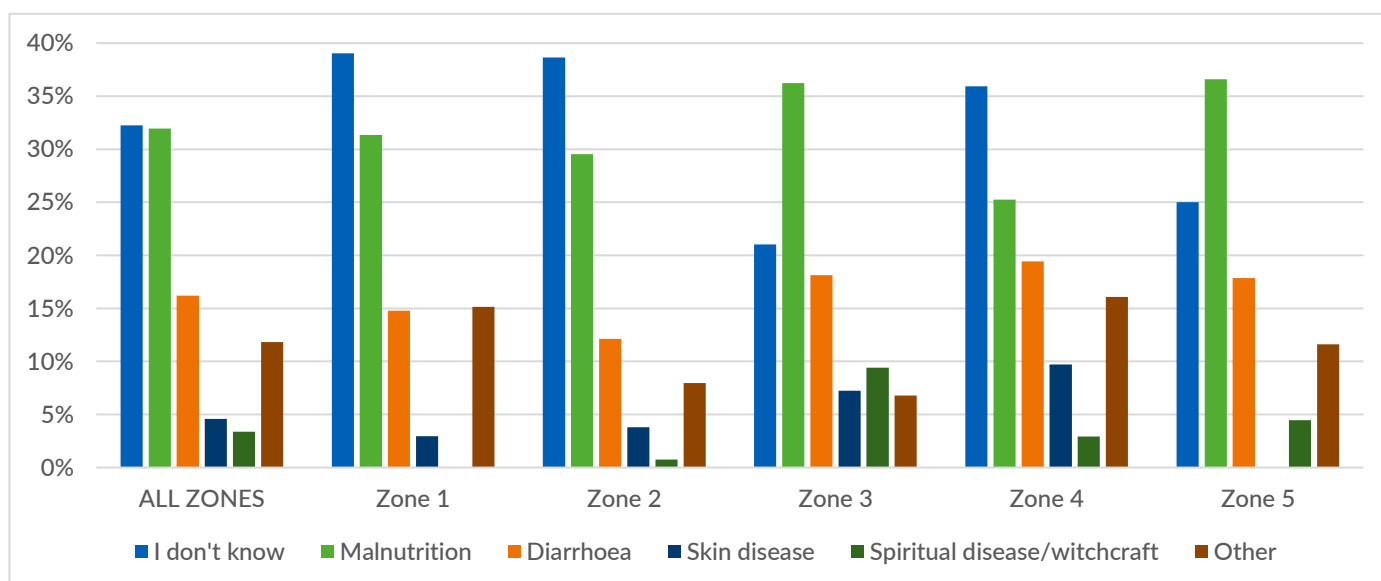
Figure 13 Perceived symptoms of child illness by carers of non-covered MAM cases (Total respondents = 564)



The responses were very similar to the responses provided by the carers of non-covered SAM cases. “Fever” was cited most frequently, followed by “Cough/runny nose”. The only notable difference between the responses from carers of non-covered SAM and MAM cases, is that “Loose Motion” (Diarrhoea) was cited more frequently for MAM cases which indicates that diarrhoea may be more common for MAM cases.

Perceived cause of sickness: Figure 14 summarises the responses, by zone and overall, of the question *What illness has caused these symptoms?*

Figure 14: Perceived illness of non-covered MAM cases by carers (n=564 respondents)



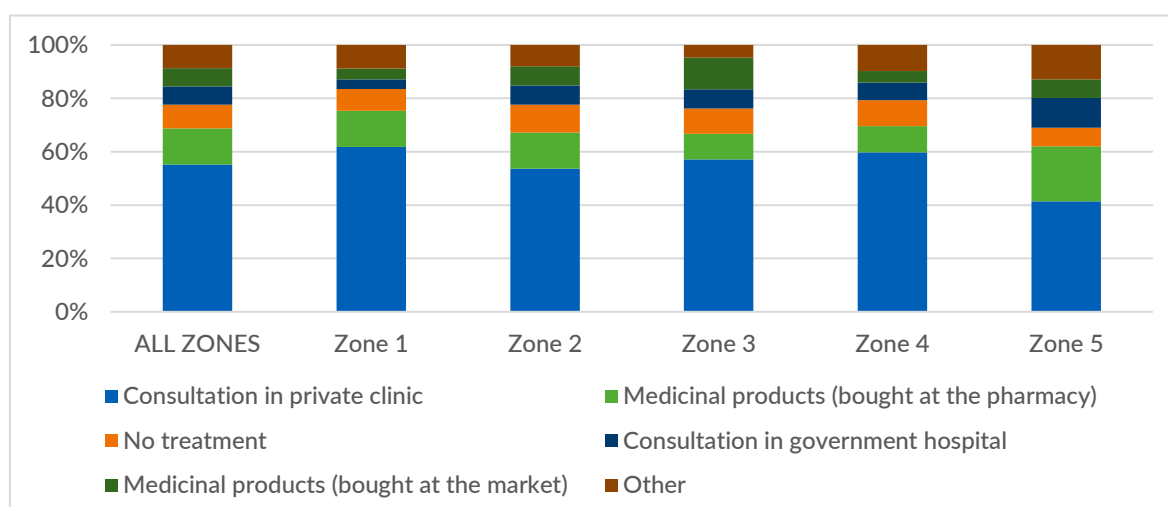
The responses to this question reflect the responses given by carers of non-covered SAM cases.

In all zones, around a third of carers said that they did not know what condition had caused their child to be sick while a third correctly identified malnutrition as the cause. “Skin disease” was also cited as the third most common cause of symptoms by carers of MAM cases.

Knowledge of malnutrition appears to be slightly better in Zone 3 (which is reflected in both the responses from carers of SAM and MAM cases) and Zone 5.

Current or intended course of treatment: Figure 15 summarises the responses to the question *How have you tried to treat this illness or how are you going to treat it?*

Figure 15: Course of treatment followed or intended for carers of non-covered MAM cases (n=564 respondents)

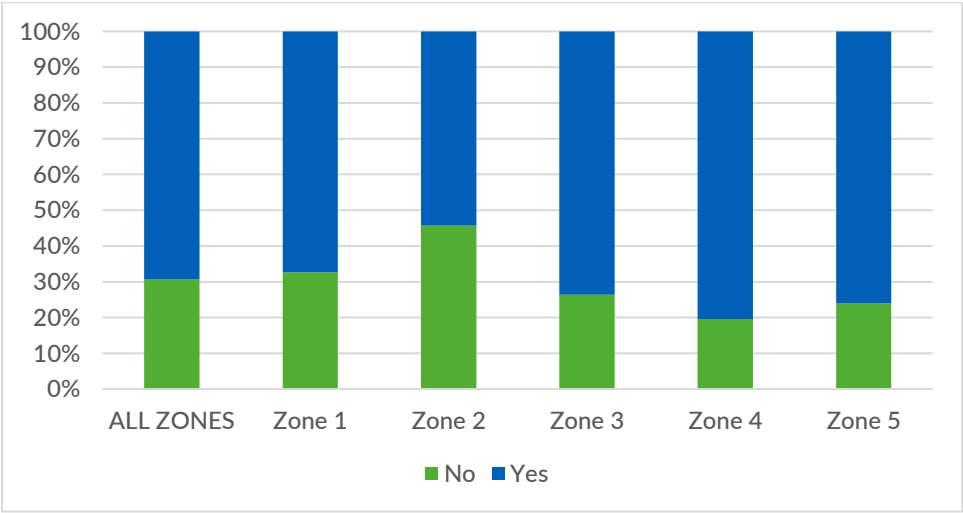


The responses to this question provided by MAM carers were nearly identical to those of the SAM carers. “Consultation in private clinic” and “Medicinal product (bought at the pharmacy)” were the two most common responses, accounting for 69% of all responses. “No treatment” was still the third most

common response and was provided by around 1 in 10 carers interviewed. Across zones, responses to this question were mostly consistent.

Awareness of services to treat acute malnutrition: Their responses to the question, *Do you know that there is a service at the health facility dedicated to the treatment of malnutrition?* are summarised in Figure 16.

Figure 16: Responses to question “Do you know that there is a service at the health facility dedicated to the treatment of malnutrition?”, Carers of non-covered MAM cases (Total respondents=564)

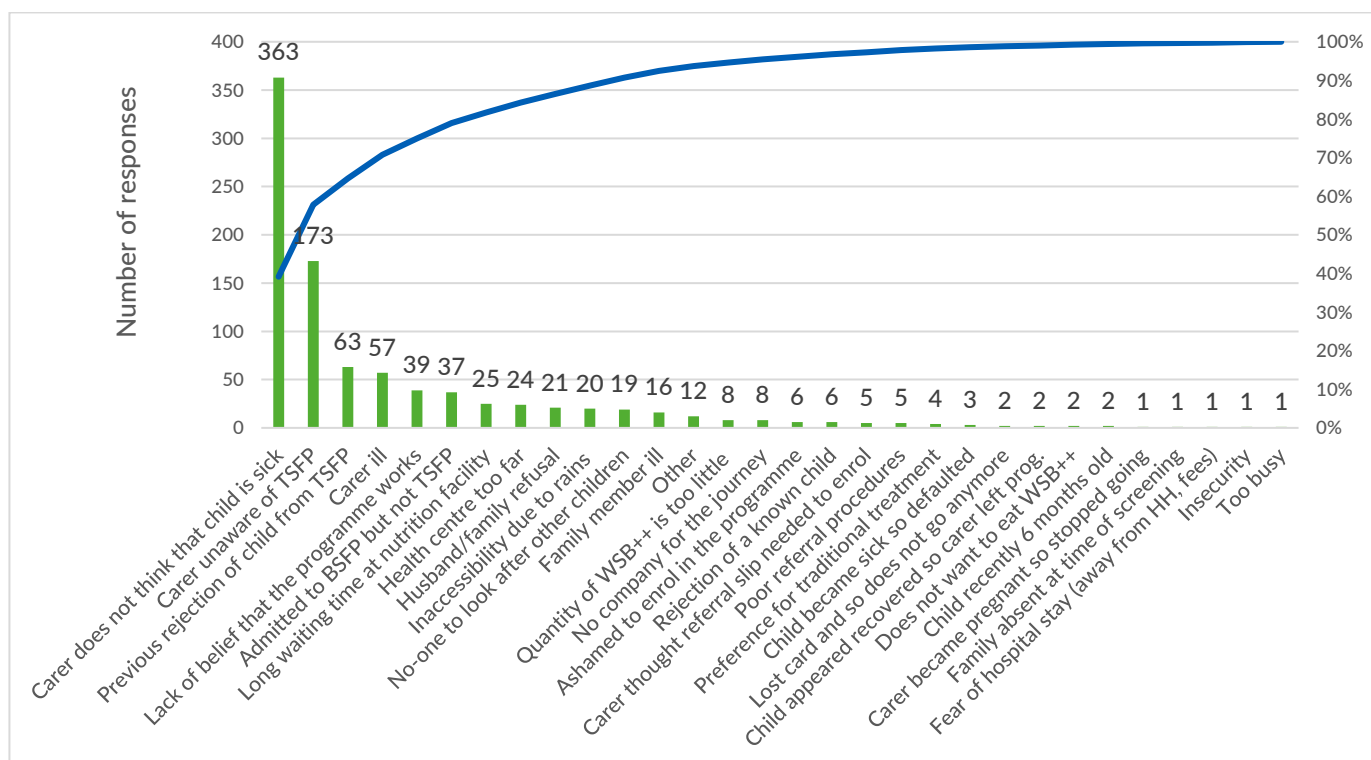


Sixty nine percent of carers of non-covered MAM cases who knew that their child was sick knew of the existence of services to treat malnutrition. These are very similar responses to the responses of the carers of non-covered SAM cases. Responses from Zone 2 also indicate that knowledge about malnutrition treatment services in Zone 2 is poorer compared to other zones (only 54% of carers knew about available services).

The only exception was in Zone 4 where around 20% of carers were unaware of available treatment services – however this is the lowest percentage of all the zones.

Reasons for non-attendance: 42% of all respondents were aware that they their child was sick and that there was a service available to treat acute malnutrition. The reasons are listed and ranked in Figure 16. This figure also includes the respondents who were not aware that their child was sick or who were not aware of nutrition services where they could take their child for treatment.

Figure 17: Primary reasons for non-attendance of carers of non-covered MAM cases (n=927)



The data in Figure 17 indicates that the main reasons for non-attendance for non-covered MAM cases relate to a lack of awareness that the child is sick and a lack of awareness of services to treat acute malnutrition. Together these account for 58% of the reasons for non-attendance provided by carers. This is very similar to the carers of non-covered SAM cases (52%). The main difference being that a greater proportion carers of MAM non-covered cases are unaware that their child is sick. As mentioned in the OTP results section, these two reasons are commonly cited in areas that have programmes that are less than 6 months old at the time of the assessment and so their primacy in the list of reasons for non-attendance is not surprising.

The subsequent important reasons cited by carers of non-covered MAM cases include “Previous rejection of child from TSFP”, “Carer ill”, “Lack of belief that programme works” and “Admitted to BSFP but not TSFP”. Together with the two first reasons relating to a lack of awareness, these four reasons account for just under 80% of the primary reasons for non-attendance.

Like the non-covered OTP cases, it is concerning that previous rejection is so highly ranked. Previous rejection came up most frequently in Zone 1 (25 or 16% of carers of non-covered cases cited previous rejection as their reason for non-attendance) and Zone 5 (14%). This could be investigated further by looking at the results from individual camps. Linked to this reason is the 5th most common reason cited: “Lack of belief that the programme works” which was given as the primary reason for non-attendance by 39 carers. With 11 carers mentioning this reason in Zone 4, it was the 3rd most common reason of all reasons cited – 8 of these from Camp 14.

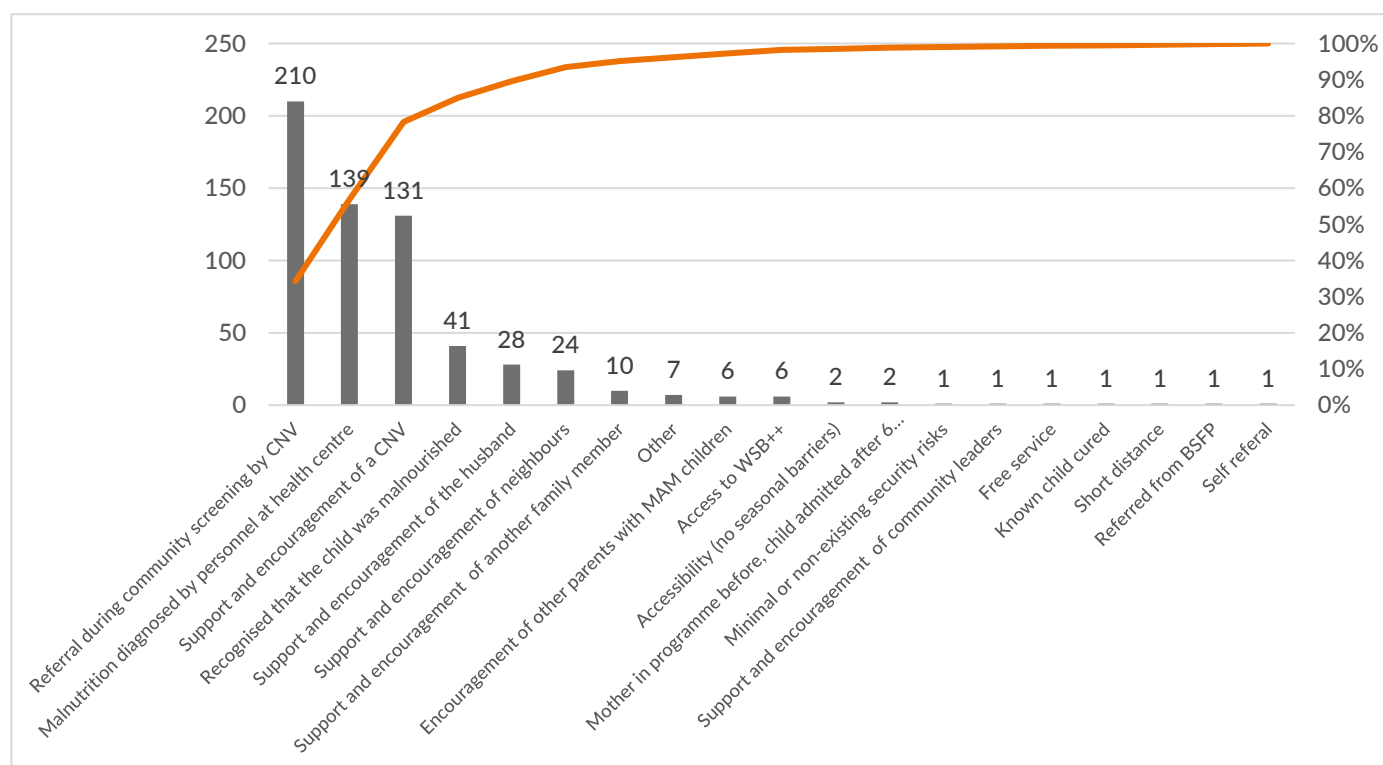
Carer sickness was also cited frequently as a reason for non-attendance (by 57 carers). This reason was provided by carers in all zones and could be as a result of the monsoon season and the poor conditions in the camps at the time of the assessment. It also illustrates that many carers do not have family members or neighbours to ask to go to the nutrition centre to collect rations for their child.

The 6th most common reason for non-attendance to the programme (for 37 non covered MAM cases) was that the child was enrolled in the BSFP and had not yet been identified as MAM and admitted to the TSFP.

Analysis of questionnaires for covered MAM cases

For cases that were identified that were in the TSFP at the time of the survey (either active cases (*Cin*) or recovering cases (*Rin*)), the assessment teams conducted a short questionnaire to identify why their carers had decided to enrol. A total of 613 questionnaires were completed and the primary reasons for enrolment are presented in Figure 18.

Figure 18: Primary reasons for attendance of MAM cases to TSFP (n=613)



The responses provided by the carers of the covered MAM cases showed that referral from community screening was the most common reason why they decided to enrol their child in the TSFP. Identification in health and nutrition centres was the second reason followed by support and encouragement of CNVs. Based on the responses from the questionnaires, these three reasons constituted nearly 80% of the primary reasons for attendance of MAM cases to TSFPs. This is comparable to the responses provided by carers of covered SAM cases (75% of carers provided one of the three reasons for attendance to the OTP).

This indicates that community outreach activities have been taking place throughout the refugee settlements and that effective passive screening is identifying cases. Ideally there should be a higher proportion of referrals from the community. That said it was a positive sign that referrals from the community were the primary reasons for attendance of 111 (18%) covered MAM cases. This is all the more encouraging given that the CMAM programme in Cox's Bazar refugee settlements was relatively young at the time of the SLEAC assessment (less than 12 months old) and in many camps TSFP had only just been rolled out.

3.6. COMBINED ANALYSIS FROM COMPLETED QUESTIONNAIRES

3.6.1. PRIMARY DECISION MAKER IN CHOICE OF TREATMENT

The carers of non-covered SAM and MAM cases were asked who, in the household or community, usually makes the decision about the choice of treatment for their child. Their combined responses are shown in Figure 19.

Figure 19: Decision makers in the choice of treatment for non-covered SAM cases (n=102) and MAM cases (n=588)

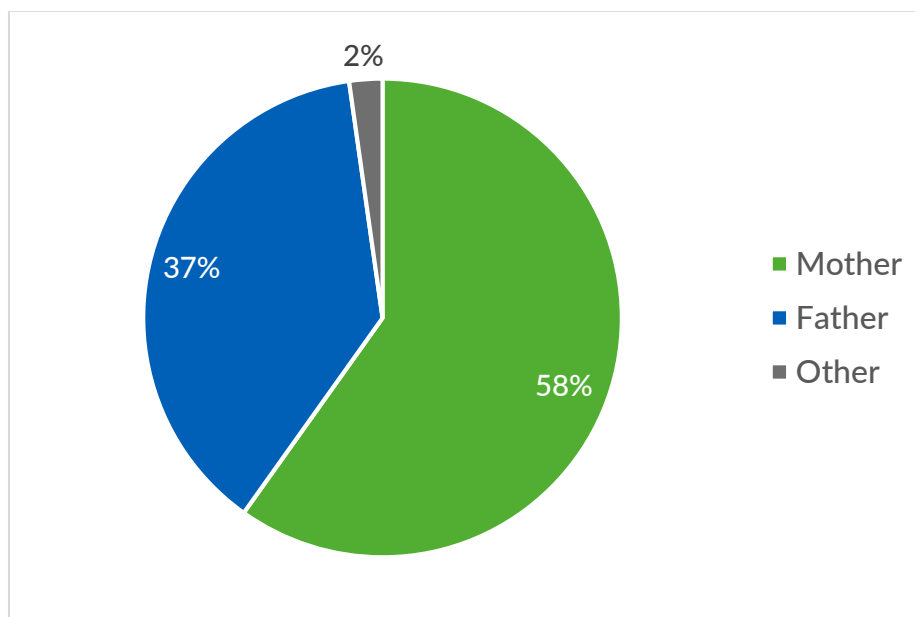


Figure 19 indicates that in approximately 4 out of 10 families of non-covered cases, the men are the primary decision makers in the choice of treatment for their children. This therefore emphasises the importance of needing to include both sexes in sensitisations sessions about the OTP and TSFP.

3.6.2. PREVIOUS ENROLMENT IN THE PROGRAMME

Questionnaires for covered and non-covered cases included a question about previous enrolment in the OTP or TSFP.

Out of the 167 non-covered SAM cases, 22 carers (13%) stated the child had been in the programme previously. The majority of these cases (17) had been discharged as cured and had relapsed into SAM. The questionnaires with covered SAM cases found a further 5 previously enrolled cases (out of 83 total covered and recovering SAM cases), all of whom had relapsed into SAM. This indicates a relatively high rate of relapse which should be monitored by nutrition partners.

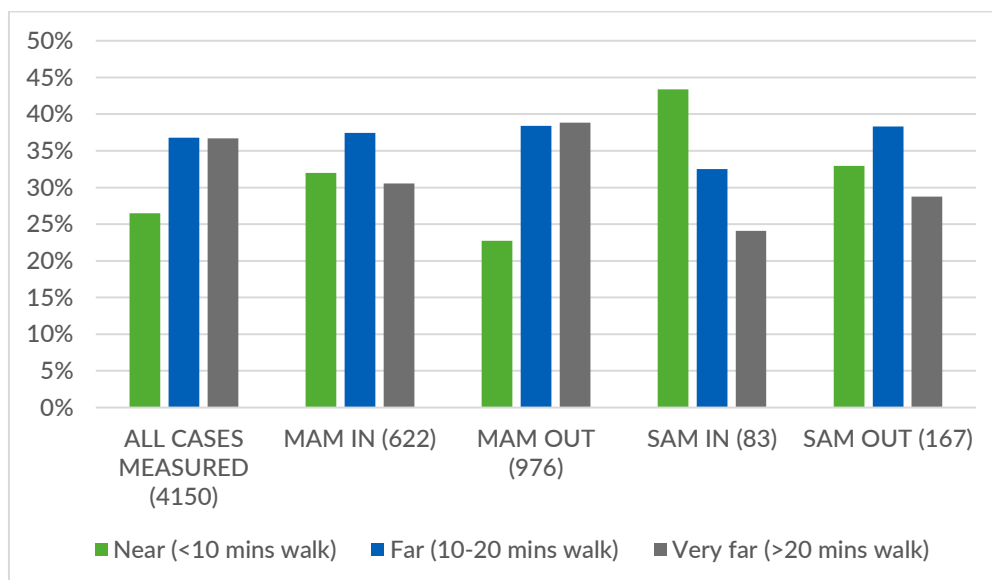
A much smaller proportion of carers of non-covered MAM cases (4% / 39 cases) said that their child had been previously enrolled in the TSFP. Out of these, 22 or 60% had previously been in the programme and had relapsed into MAM. All of the covered MAM cases who had been in the programme previously also stated that their child had relapsed after being discharged as cured.

The remaining 40% (15 cases) had either defaulted or been discharged as non-respondent. The primary reason for default was carer sickness or pregnancy.

3.6.3. PERCEIVED DISTANCE FROM NUTRITION CENTRE

All carers of cases that were interviewed during the SLEAC assessment (including all children who had a MUAC of less than 140mm) were asked by the interviewers to specify the perceived distance (in walking time) from their home to the nearest nutrition centre. The results are shown in Figure 20.

Figure 20: Perceived walking time from carer's home to nearest nutrition centre (Total respondents = 4150)



The data in Figure 20 indicates that 74% of families live at least 10 minutes' walk away (perceived as "Far" in Cox's Bazar refugee settlements) from the nearest nutrition centre with half of carers saying that the distance is more than 20 minutes ("Very far").

How does distance affect coverage of OTP and TSFP services?

As shown by Figure 20, a greater proportion of non-covered MAM and SAM cases live more than 10 minutes away from nutrition centres than covered cases. This indicates that distance is a negative factor affecting coverage. However distance was mentioned as the primary reason for non-attendance by a relatively small proportion of carers of non-covered cases (24 MAM non-covered cases [3%]; 3 SAM non-covered cases [2%]). So it is hard to judge from this information the true impact of distance on the coverage of services. However the responses from the qualitative survey provide more detailed information about the perception of distance in the camps.

4. FINDINGS FROM QUALITATIVE INVESTIGATION

4.1. INTRODUCTION

Two teams of investigators conducted the qualitative investigation in Cox's Bazar refugee settlements over the course of 10 days. The methodology of the qualitative investigation are described in detail in the Section 2.4.

This section summarises the main findings of the qualitative investigation by theme. Each theme includes the consolidated list of factors identified for the relevant theme and the triangulation of each factor (by camp and key informant) followed by general observations.

Considering that the number of interviews/focus group discussions conducted was relatively small for the size of the investigation area (63 for a total population of more than 900,000), the findings provide some general observations and trends which could be investigated further in subsequent assessments and studies. It was difficult to disaggregate the qualitative data by zone or by camp, however this has been done in some cases.

The complete list of zones, camps and sub-blocks visited is available in Table 8. A summary of the camps visited by SLEAC zone is presented in Table 26.

Table 26: Summary of camps visited during qualitative investigation

SLEAC Zone	1	2	3	4	5
Camps visited	1E, 2E, 3, 4	7, 8E, 9, 10	12, 13, 18, 19	14, 15, 16	22, 24, 25, 25 (RC)*, 26

* "25 (RC)" refers to Nayapara registered camp

4.2. AWARENESS, KNOWLEDGE AND PERCEPTIONS OF MALNUTRITION

Table 27: Positive and negative factors relating to awareness, knowledge and perceptions of malnutrition

		SAM CARERS MAM CARERS MEN WOMEN BLOCK LEADER CNV IMAM							
POSITIVE FACTORS	Camp	Number of key informant interviews							Total
Recognition of symptoms of malnutrition in a child	1E, 2, 3, 4, 7, 8E, 9, 10, 12, 13, 14, 15, 16, 18, 19, 22, 24, 25, 26	4	8	10	11	7	6	5	51
Knowledge of causes of malnutrition	1E, 2E, 4, 7, 8E, 9, 10, 12, 13, 14, 16, 18, 22, 25, 26	1	5	1	6	5	3	2	23
Knowledge of the effects of malnutrition on a child	1E, 7, 9, 12, 13, 14, 16, 18	3	4	1	1	4	1	1	15
NEGATIVE FACTORS									
Poor understanding about malnutrition	3, 4, 7, 9, 12, 14, 18, 19, 21	1		3	2		1	5	12
Incorrect beliefs about malnutrition: - Belief that malnutrition is caused by ghosts - Perceived as a communicable disease - Caused by smoke	1E, 2E, 3, 4, 7, 8E, 9, 12, 13, 14, 15, 19, 22, 24, 25, 25 (RC), 26	7	6	7	6	5	6	5	42
Malnutrition is stigmatised negatively by community because it is associated with frequent pregnancies	1, 4, 14, 18		1	2		1			4

The qualitative investigation findings in Table 27 indicate that recognition of the symptoms of malnutrition in a child was relatively good amongst the key informants reached during the qualitative investigation. Out of the 63 focus group discussions/semi-structured interviews conducted, over 50 key informants were able to identify to interviewers at least one symptom of malnutrition. The triangulation also indicates that knowledge is consistent across most camps and zones. However the findings do indicate that knowledge was better amongst groups of women than groups of men.

Knowledge of the causes of malnutrition and of the effects of malnutrition on a child were not as well triangulated amongst key informants. However there was a more or less even spread of knowledge of the causes and effects of malnutrition across the five SLEAC zones.

Multiple negative factors relating to the perception of malnutrition also came from interviews. The perception most strongly triangulated was the belief that malnutrition is caused by ghosts. This belief was mentioned in at least one discussion or interview in each of the key informant groups and was most commonly mentioned in Zones 1, 2 and 3. Other misconceptions that were identified during the focus group discussions and interviews included the belief that malnutrition was a communicable disease and that malnutrition is caused by smoke.

However the qualitative results also indicate that malnutrition is not widely stigmatised in the camps.

Poor understanding about malnutrition was identified by the investigation teams during interviews with a range of key informants, but most notably with imams (5 out of the 6 imams spoken to demonstrated poor knowledge of malnutrition based on the judgement of the investigation teams).

4.3. HEALTH SEEKING BEHAVIOUR AND KNOWLEDGE OF NUTRITION SERVICES

Table 28: Positive and negative factors relating to health seeking behaviour and knowledge of nutrition services

		SAM CARERS	MAM CARERS	MEN	WOMEN	BLOCK LEADER	CNV	IMAM	
POSITIVE FACTORS	Camp	Number of key informant interviews							Total
Good health seeking behaviour: - When child gets sick, carer goes to doctor or hospital	2E, 13, 22, 25 (RC)	1		3	2	1			7
Good awareness of nutrition services: - Awareness of nutrition services and that thin and sick children are referred to services - Awareness that OTP is free - Understanding of significance of red on MUAC tapes	1E, 3, 4, 9, 10, 12, 13, 14, 18, 24, 25, 26	3	2	3	2	4	1		15
Understanding of benefit of nutrition services: - Carers know that OTP can improve the health of their children - Understanding of full course of treatment of acute malnutrition - Carers willing to continue treatment through to cure	2E, 7, 12, 13, 14, 15, 18, 19, 24, 25 (RC), 26	7		1	2		4		14
NEGATIVE FACTORS									
Preference for alternative treatment: - Mothers advised to go to traditional healer if child malnourished - Father thinks that child can be cured at home as he has money	16, 25, 26				1	1	1		3
Negative perceptions about nutrition programmes: - Carers don't want their children to be measured for WFH as they believe that measuring weight and height decreases their weight - Mother believes that WSB++ reduces child's appetite	8E, 10		2				1		3

The results in Table 28 indicate that key informants interviewed demonstrated some knowledge about the CMAM services in the Cox's Bazar refugee settlements. For example a range of key informants demonstrated understanding of the different CMAM services available, and of the fact that it is a free service. A few key informants also said that they recognise a MUAC tape and significance of the red marker.

However the results only represent a small proportion of all key informants interviewed and so should be interpreted with care. While it is not necessarily important for all community members to know about the nutrition services available, it is concerning that MUAC tapes are not recognised more widely.

It is positive that some community members said that they would go to hospitals or doctors if their child fell sick. But again, the responses only represent a small proportion of key informants reached.

Conversely, it is positive that negative practices such as preference for traditional treatment were mentioned by very few key informants. Traditional healers seem to be preferred for just two key informants interviewed and other negative practices seem rare.

4.4. COMMUNITY OUTREACH ACTIVITIES

Table 29: Positive and negative factors relating to community outreach activities

		SAM CARERS MAM CARERS MEN WOMEN BLOCK LEADER CNV IMAM							
POSITIVE FACTORS	Camp	Number of key informant interviews							Total
CNVs conduct effective screening, referrals and follow up: - CNVs conduct screening at household level - CNV accompanies mother to OTP - CNV feels motivated and received support and training - CNVs work together across blocks	1E, 2E, 3, 4, 7, 8E, 9, 10, 12, 13, 14, 15, 16, 18, 19, 22, 25 (RC), 26,	8	6	9	5	3	18	4	53
Sensitisations take place and are appreciated by the community: - CNV conducts sensitisation at household level - Sensitisations take place at community level - Sensitisations appreciated by community - Nutrition Action Week informed carers about OTP	2E, 3, 4, 7, 8E, 9, 10, 12, 13, 14, 16, 18, 19, 24, 25, 25 (RC), 26	7	7	5	8	8	11	8	54
Sensitisation about nutrition services conducted by key community members and other actors: - Block leader shares information from sensitisations + encourages community to continue - OTP + TSFP discussed at monthly meeting at mosque	4, 8E, 10, 12, 14, 16, 18, 19, 24, 25	5	2	3		1		3	14
Referrals are made by community members and others: - Community refers cases to OTP and TSFP - Neighbour encourages mothers to continue treatment - Mother refers other children to nutrition centre - Child measured and referred during a survey	8E, 9, 14, 25, 26	6	1	1					8
NEGATIVE FACTORS									
Screening is not taking place at community level	1E, 2E, 10, 13, 18, 22	2	2	4	3	2			13
Sensitisations are not taking place at community level: - No sensitisations on any nutrition services - No sensitisation on TSFP services	1E, 2E, 4, 8E, 15, 16, 18, 22, 24, 25, 26	3	1	5	3	2	2	1	17
Sensitisations are not targeting all necessary groups: - Adolescent girls not sensitised - New families are not aware of nutrition programmes	14, 25 (RC)				1		3		4
Volunteers do not have capacity to conduct sensitisations	1E, 3, 8E, 14	1		2			1	1	5

As proven by the responses to the covered cases questionnaires from the SLEAC assessment, community outreach activities are the primary mechanism of recruitment for SAM and MAM cases in community. Approximately 75-80% of carers of covered cases said that they had enrolled their child into the OTP or TSFP because they had been referred by CNVs or because the condition of their child had been identified while at a health/nutrition centre.

The findings of the qualitative investigation support this. Approximately a third of key informants confirmed that CNVs conduct screening at household level. Additionally, key informants in a range of camps confirmed that the CNV's encourage mothers to continue treatment during follow up visits. At least one key informant in all of the camps visited in Zone 4 stated these two factors. However some of the key informants who passed this information on were CNVs themselves therefore the results should be interpreted with caution.

Similarly, community sensitisations were confirmed to be taking place by multiple key informants (including some block leaders and imams) in multiple communities. Several key informants (including four groups of women) went further to say that they appreciated the sensitisations.

However some key informants (approximately 20%) said that they had never seen house to house screenings taking place in their communities. An absence of sensitisations was also noted by key informants in multiple camps. Therefore these results indicate that screening and sensitisations are

taking place and are working well in some camps and zones but that they are not taking place in others.

The weak evidence of CNV's working together across camps can also be seen as a negative factor in light of the fact that many of the camps are located in such close proximity to one another.

Furthermore there is very limited evidence that block leaders, imams and men attend sensitisation sessions, even if they are aware of the sensitisations taking place. Some key informants also noted that adolescent girls are not attending sensitisation sessions.

However, one positive factor is confirmation by some key informants that staff from other programmes are telling the community about the nutrition services operating in their camp.

4.5. QUALITY OF CARE OF NUTRITION SERVICES

Table 30: Positive and negative factors relating to quality of care of nutrition services

		SAM CARERS	MAM CARERS	MEN	WOMEN	BLOCK LEADER	CNV	IMAM	
POSITIVE FACTORS	Camp	Number of key informant interviews							Total
Positive perceptions about treatment products: - Plumpynut improves energy and appetite of child and improves health - Child likes plumpynut - WSB++ improves health of children - Plumpynut not shared at home	1E, 2E, 4, 8E, 10, 13, 14, 22, 25, 26	12	2	2	2	1			19
Positive experiences in treatment centres: - No breaks in supply of ration - Nurse is kind to beneficiary and explains treatment	4, 7, 8E, 9, 12, 14, 19, 25	7	2		1				10
NEGATIVE FACTORS									
Negative perceptions and use of treatment products: - RUTF / WSB++ sold in the market - Plumpynut/WSB++ causes diarrhea and swelling - Plumpynut / WSB++ shared at home with family - Children do not respond to treatment with WSB++ - There are insects in WSB++ / bad smell	1E, 3, 4, 7, 9, 12, 13, 14, 22, 25, 25 (RC), 26	7	5	8	8	3	4		35
Negative experiences at treatment centres: - Long waiting time to get treatment TSFP/OTP - Rude staff at nutrition facility (TSFP+OTP) - Poor conditions at OTP - Language barrier at nutrition facility - No sitting space at TSFP - Refusal from TSFP so carer does not go anymore	1E, 2E, 3, 4, 7, 8E, 9, 10, 12, 13, 14, 15, 16, 18, 19, 22, 24, 25 (RC), 26	8	7	13	9	5	3		45
Lack of or inadequate sensitisation at treatment centres: - Nurse does not explain about treatment - Mother eats WSB++ so that baby gets milk - No sensitisation about admission criteria in TSFP - Children provided plumpynut quickly and not measured as it was closing time in OTP - Mothers don't want to travel every two weeks to TSFP as amount of food provided is too little	1E, 2E, 12, 13, 14, 18, 19, 24	4	5	2	3	1	1		16

The number of responses from key informants presented in Table 30 indicate that there are a range of challenges associated with the quality of care of nutrition services. This goes some way to explaining the low levels of treatment coverage identified in the camps during the SLEAC survey.

Some carers and their children in a range of camps confirmed during the qualitative investigation that they appreciate both RUTF and WSB++ and confirmed that the products improve the health of their children.

However there were also negative points raised about the products (eg Plumpynut and WSB++ cause diarrhoea and insects were found in the WSB++). Furthermore multiple key informants confirmed that they had seen RUTF and WSB++ being sold in local markets. This seems to take place throughout all of the SLEAC Zones, but most frequently in Zones 1, 2 and 5. A third of SAM and MAM carers also confirmed that they share RUTF and WSB++ with other family members. Carers are likely to be sharing and selling malnutrition treatment products as they see them as food rations as opposed to treatment for their sick child. This indicates therefore that sensitisation at the point of treatment is insufficient in some nutrition programmes.

With regards to treatment at nutrition treatment centres, multiple key informants said that waiting time was too long. This factor was raised in most camps in all zones but most frequently in Zones 1 and 4. Poor conditions at nutrition centres was also raised as a problem by some key informants in addition to poor behaviour by staff.

Some carers of SAM and MAM cases also said that they were not informed by nurses about treatment during treatment and in certain cases, nutrition centre staff provided carers with product without measuring their child as it was near closing time.

Each negative factor or experience raised by key informant can have a major impact on the choice of other carers to make the journey to nutrition centres. So the impact of these factors of the overall treatment coverage of nutrition services should not be underestimated.

4.6. ACCESS RELATED FACTORS AFFECTING COVERAGE

Table 31: Positive and negative factors relating to access to services

		SAM CARERS MAM CARERS MEN WOMEN BLOCK LEADER CNV IMAM							
POSITIVE FACTORS	Camp	Number of key informant interviews							Total
OTP close to beneficiary's home	26	1							1
Other carer in home to support care	2E, 26	2							2
NEGATIVE FACTORS									
Physical and geographical access issues: - TSFP / OTP is far - Access related challenges due to heavy rain - Difficult access due to poor state of roads - Difficult access due to hilly area	1E, 4, 7, 8E, 9, 10, 12, 13, 14, 15, 18, 19, 24, 25, 26	5	5	6	6	3	6	2	33
Lack of additional support for carers: - Mother did not attend programme as she was pregnant and did not have support - No carer at home therefore child defaulted	1E, 10, 13, 15, 22, 26	3	1	2		1	1		8

Factors relating to access and support for carers are summarised in Table 31.

Approximately half of key informants told investigation teams that access related factors (such as distance from homes or blocks to nutrition centres or the monsoon rains) prevent or dissuade them, or community members in their communities, from going to nutrition centres. Distance was most commonly cited as a negative factor in Zone 3, but it was raised as a problem in all zones by a range of key informants. The monsoon rains were also raised as a barrier to access for key informants interviewed in Zones 1, 2 and 3.

The proximity of services to a carer's home was only cited as a positive factor during one FGD with a group of SAM carers. It is surprising that this was not raised as a positive factor by more carers of malnourished children considering that it is a camp setting and that distances are relatively small.

This indicates that travelling around camps, even by foot, is particularly difficult for carers owing to the poor state of roads and paths and that in the eyes of community members, anything more than a 10 minute walk away could be perceived as far.

Finally lack of support for carers at home was raised as a negative factor by some carers, especially while the carer is pregnant. This was also cited as a reason for non-attendance to OTPs and TSFPs by carers of non-covered SAM and MAM cases.

4.7. ADDITIONAL QUALITATIVE INVESTIGATION FINDINGS

The data collection teams also collected and synthesized information relating to the roles of imams and block leaders and the decision-making processes and communication channels in sub-blocks. This information could help nutrition partners to communicate messages relating to the CMAM programme more effectively.

The responses from the block leaders (also known as “mahjees”) are summarised in Tables 32-34.

Table 32: Roles of block leaders and imams identified during semi-structured interviews

ROLES OF BLOCK LEADERS	ROLES OF IMAMS
- Help food and non-food item distributions - Help in case of any accident - Sensitise about treatment services from facilities to communities - Communication with CIC and other NGOs - Act as mahjee / leader in their block - Help make registration cards for new arrivals - Sensitise mother to send their children to school - Revolve problems that occur in the community - Take lead in communicating new messages to the community	- Continue prayer session in the mosque - Teach students in the mosque - Act as a traditional healer - Act as a lawyer to resolve disputes - Take part in different awareness sessions - Give suggestions to the community members for the wellbeing of the community - Conduct door to door visits to remind community to obey Islamic rules - Sensitisation about hygiene and sanitation - Religious duties after death

Table 33: Decision making processes

HOW ARE DECISIONS MADE?	WHY DO THEY MEET?
- All mahjees sit together to discuss and decide - NGOs make decisions and block leaders implement - CIC passes decisions to mahjees - The head mahjee / camp chairman disseminates the decision	- To discuss treatment or health related issues - About receipt of different types of food relief - When NGOs call them together - During incidents in the camps - Social quarrel minimisation - Weekly meetings in the CIC office - Madrassa meeting / weddings / deaths / celebrations

Table 34: Communication channels

Which communication channels exist?	Which are most effective?
- Broadcasting through megaphones in the community - Broadcasting from the mosque by imam - Communication with the support of majhees and volunteers - When they sit together in the mosque after prayer (men only) - Imam/mahjees make door to door visits - Communication via mobile and internet	- If Imam and Mahjee go door to door directly - Broadcasting from the mosque by the imam

5. DISCUSSION

The SLEAC assessment held in the Cox's Bazar's established and makeshift refugee settlements in August 2018 found that 27.7% (95% CI: 22.5-32.9%) of SAM cases were covered by OTP services and 34.1% (95% CI: 31.9-36.4%) of MAM cases were covered by TSFP services. Both of these coverage estimates fall well below the Sphere standard for coverage in camp contexts (90%).

There are a range of reasons which contribute to the coverage estimates being particularly low. Based on the responses from the carers of non-covered cases identified during the assessment, 52% (SAM cases) and 58% (MAM) of carers were either not aware that their child was sick or knew that their child was sick but did not know that a nutrition programme existed where they could seek treatment. For both SAM and MAM non-covered cases, "previous rejection" and "lack of belief that the programme work" were also a frequently cited reasons for non-attendance, as well as "carer sickness".

The assessment also found that quality challenges in both OTPs and TSFPs frequently impacted on the decision of carers to visit nutrition centres to seek treatment for their children. Quality concerns were also raised throughout the assessment area during the qualitative investigation which took place in selected sub-blocks in 20 camps across all five SLEAC zones.

Despite the low coverage estimates, the results from the qualitative investigation indicated that community outreach activities (including house-to-house screenings and community sensitisations) are taking place. Many of the different community members reached during the qualitative investigation also confirmed that they could recognise the symptoms of malnutrition. However around two thirds of community members had misconceptions about the causes of malnutrition.

The coverage standard is set at 90% in camp contexts as there are likely to be very few *access*-related barriers in camp contexts. Distances in camps from homes to nutrition centres are relatively small and so, in theory, carers can easily make the journey to nutrition centres. Equally outreach workers can ensure that they cover all of their catchment areas without having to worry about transport. However it is clear that the Cox's Bazar refugee settlements does not represent a "typical" camp setting and could be more closely likened to an urban context (where the coverage standard is 70%). This was evidenced by the fact that barriers relating to access were cited by around half of the key informants spoken to during the qualitative investigation and by some carers of the non-covered cases. In spite of this, the results from the SLEAC assessment suggest that coverage was particularly low at the time of the assessment.

Based on the findings of both the SLEAC assessment and qualitative investigation, the following factors can go some way to explain why this was the case OTP and TSFP services. It should be noted that these factors do not differentiate between OTP and TSFP services because the responses from the carers of non-covered SAM and MAM cases were very similar and because it was difficult for key informants to identify programme-specific challenges during the qualitative investigation:

1. Effective, coordinated community outreach strategies for OTPs and TSFPs which are based on the Rohingya communities' health seeking behaviours are not yet operating

A lack of awareness that the child was sick was the primary reason for non-attendance in nutrition programmes for both SAM and MAM cases not covered by the programme. Therefore this suggests that one or more of the following factors in camps:

- Outreach strategies are not conceived based on the health seeking behaviours of the Rohingya communities
- Community outreach on the causes, signs and symptoms of acute malnutrition in young children is not taking place, or is only taking place in certain camps.

- Community outreach on the causes, signs and symptoms of acute malnutrition is not reaching community members who take decisions on the course of treatment for sick children or those who advise others on the course of treatment for sick children

Due to the rapid expansion of services since the influx of refugees in August/September 2017, at the time of the coverage assessment, many of the OTP services had only been operating for a few months. Some of the TSFP services had only been operating for matter of weeks. Therefore it is unlikely that nutrition partners operating these centres would have had the opportunity to establish and roll out community outreach strategies which were appropriate for the communities they were supporting. Therefore it is not surprising that a lack of awareness of the signs and symptoms of acute malnutrition and of the existence of dedicated programmes to treat acute malnutrition ranked highest in the list of reasons for non-attendance for non-covered cases. This can also be seen from the recurrence of misconceptions about the causes of malnutrition in the qualitative results and the poor knowledge of malnutrition by some key community members (such as imams).

Evidence of poor sensitisation was not only found with the work of the community outreach teams. During the qualitative investigation multiple key informants in all SLEAC zones said that they had seen RUTF and WSB++ for sale in markets in the camps. This indicates that there is poor sensitisation of carers in nutrition centres by nutrition centre staff. If therapeutic products are being sold in markets, it indicates that the carers perceive them as food rations as opposed to essential medicines needed to improve the health of their children.

During the results presentation workshop, nutrition partners devised a number of recommendations and activities to improve community outreach activities and nutrition centre sensitisations which are listed in the next section. If nutrition partners can implement these activities in a coordinated way, then they stand a better chance of improving awareness amongst the Rohingya communities in the camps about acute malnutrition and about the services that exist to tackle it.

However in addition to these activities, it is also recommended that more in-depth qualitative studies are conducted on the health seeking behaviours of Rohingya communities to better inform messages included in community outreach activities.

2. Coordination challenges between nutrition centres and quality of care failings are leading to a loss of confidence in nutrition programmes

The third most common reason for non-attendance for non-covered SAM and MAM cases was previous rejection from the programme. While it was difficult to identify why this happened for the carers who stated this during the SLEAC assessment, it suggests that problems exist in certain camps with the referral of SAM and MAM cases and/or between nutrition programmes.

A significant number of carers of non-covered cases (37 non-covered MAM cases and 7 non-covered SAM cases) also said that the reason they did not visit the relevant programme was because they did not believe that the programme worked. Multiple quality of care challenges were also mentioned by key informants during the qualitative investigation including long waiting times, poor conditions (in the OTP) and rude staff.

In relation to rejections from programmes, one problem which emerged during discussions with partners was that in some camps, catchment areas for each nutrition centre were not clearly defined. Therefore CNVs were potentially not conducting house to house screening in some communities while in other communities, multiple CNVs from different nutrition centres were conducting screening in the same communities. This would almost certainly cause confusion and frustration amongst carers.

Furthermore, the investigation into the non-covered SAM cases found that 8 referred cases had not been admitted to the OTP as they came from outside the catchment area of the OTP. Therefore it is a

priority for partners to clearly define catchment areas and to agree actions to follow if a SAM or MAM cases from outside their catchment area arrives at their OTP or TSFP.

Negative experiences at nutrition centres such as these can have a significant impact on the coverage of the programme. If one carer has a negative experience and then goes back to his or her community to pass on the information to his or her neighbours, this could lead to other carers refusing to go, even if they are referred by a CNV or during a community screening.

Therefore these issues must be addressed by nutrition partners as a priority. During the results presentation workshop partners elaborated a number of recommendations and activities to improve quality of care of their nutrition centres which are available in the next section.

3. Use of a higher MUAC cut-off during the SLEAC assessment

During the SLEAC assessment a MUAC cut-off of 140mm was used (more information about why this decision was taken is available in Section 2.3.7). Therefore the partners of the ATWG of the Nutrition Sector decided to raise the MUAC cut-off to 140mm during the SLEAC assessment. Based on the data collected during the previous rounds of SMART surveys, using a cut-off of 140mm would ensure that at least 80% of GAM cases would be identified. A cut-off of 150mm would have ensured that 100% of GAM cases would have been located – however given that this would have involved nearly every child in each sub-block being measured for WFH Z-score during the SLEAC, excessive pressure would have been placed on the data collection teams. Therefore the ATWG decided to reduce the cut-off to 140mm.

The anthropometric results are shown in Figure 4. In brief, 29% of SAM cases and 65% of MAM cases had MUACs of 125mm or more. For both SAM and MAM cases, coverage was higher for those children with MUACs less than 125mm than for those with MUACs equal to or greater than 125mm. Therefore if data collection teams had only calculated the WFH Z-score for children with MUAC measurements less than 125mm, the final coverage estimates for both SAM and MAM treatment would have been higher. However only slightly higher. For SAM coverage, the estimated coverage would have been 30.7% (point coverage) as opposed to 21.5% (point coverage). For MAM coverage, the estimated coverage would have been 35.2% (point coverage) instead of 28.1% (point coverage). Therefore this provides justification to increase the MUAC “cut off” to a measurement higher than 125mm (135mm had been proposed and rolled out in some camps prior to the SLEAC assessment). But this action alone will not result in a significant increase in OTP and TSFP services.

Increasing the MUAC cut-off will also increase the risk of negative perceptions about CMAM services as if children under 135mm are referred to a TSFP centre for screening and are then found to not be SAM or MAM and not admitted into the relevant programme, this could lead to an increase in negative perceptions in the community. Therefore nutrition partners should agree how to mitigate this risk (for example, offering additional food rations to carers of children who are turned away).

The results from this SLEAC assessment have provided an indication of the treatment coverage of SAM and MAM treatment programmes across the Cox’s Bazar refugee settlements and the most likely reasons for low coverage in some of the camps. The qualitative study also provided some more detailed information about the awareness and perceptions of acute malnutrition and of nutrition treatment programmes. Using this information, the nutrition partners can start to address some of the most impactful quality challenges in nutrition centres and can improve community outreach in order to improve service uptake.

However each camp has a separate community which has separate needs. Community outreach strategies should therefore be devised based on more detailed investigations at camp level (or in groups of camps) using a methodology such as the SQUEAC¹³ methodology. A final recommendation

¹³ Semi-quantitative evaluation of access and coverage

is therefore for partners to plan and implement SQUEAC assessments in the months to come to further investigate the main reasons why carers are not bringing their children to nutrition centres for treatment.

But this should only be done once community outreach activities are well-established and are operating in an organised manner across defined catchment areas, and when nutrition centres are providing quality treatment services for acutely malnourished children consistently across all camps.

Finally it is important to note that coverage is not uniformly low across all camps. Some camps demonstrated significantly higher coverage. As the sample sizes per camp were very low, it is not possible to classify per camp – however it is possible to see which camps had a higher proportion of covered cases. The camp-by-camp results are included in Annex 6.

6. RECOMMENDATIONS

The coverage assessment in Cox's Bazar refugee settlements enabled the core team and nutrition partners in the Nutrition Sector to identify a range of blockages in the delivery of the CMAM programme in camps. During the results presentation workshop, the partners present worked in groups to devise suitable recommendations and activities to address the problems which emerged from the assessment. The list of recommendations is included in Table 35.

Table 35: Recommendations to improve coverage of CMAM programme in Cox's Bazar refugee settlements, agreed by Nutrition Sector partners, September 2018

THEME	CHALLENGE	RECOMMENDATION	RESPONSIBLE AGENCIES	TIMELINE
COMMUNITY OUTREACH - SCREENING	<i>House to house screening is not taking place consistently in all sub-blocks.</i>	- Effective monitoring system should be in place - Need to harmonize the outreach planning - Coordination between the agencies - List of all children in each catchment area	- All sector partners - Sector camp focal	Immediately
	<i>CNVs are referring cases which are subsequently rejected at the nutrition facility due to carer going to wrong nutrition facility.</i>	- CNVs need to provide clear instructions and reasons for referrals e.g. for screening for MUAC <135 mm and admission for malnourished cases - Defined catchment areas should be provided to the centres; also the CNVs should have a clear knowledge about the areas of the centres	All sector partners	Immediately
	<i>Carers cannot travel to nutrition facility alone.</i>	- To improve community mobilization and sensitization. - Encouraging other family members to accompany mothers to nutritional facilities	All sector partners	Immediately
	<i>CNVs from different organisations working in the same camps do not coordinate leading to carers getting confused about available services.</i>	- Map community outreach service provision such that CNVs provide SAM and MAM screening per given geographical area - Strengthen Coordination of the outreach activities	- UNICEF, WFP, UNHCR - All sector partners - Nutrition Sector	October
COMMUNITY OUTREACH - SENSITISATIONS	<i>Limited understanding of acute malnutrition, its symptoms and implications by care givers</i>	- Use positive deviance (using visual)/peer support groups - Understand and use local terms for malnutrition - Increasing sensitization of mothers by community nutrition workers - Conduct formative research to understand better health seeking behaviours and understanding of child illnesses	- All sector partners - WFP formative research	October

THEME	CHALLENGE	RECOMMENDATION	RESPONSIBLE AGENCIES	TIMELINE
	<i>Traditional beliefs that malnutrition is caused by evil powers</i>	- Intensify Sensitization of religious leaders and traditional healers and give MUAC to traditional healers to refer malnourished cases to nutrition facilities - Educational activities (visual) highlighting causes of malnutrition + linking diseases with malnutrition	- All sector partners - CMAM TWG	October
	<i>Lack of awareness about existing nutritional services</i>	- Use Billboards - Highlight available services during each CiC & other community meeting - Involve mothers to spread messages. Include specific message during counselling - Sensitization through other community groups such as mother groups, drama, infotainment, etc	- All sector partners - Nutrition sector to follow up with CwC	Immediately
	<i>Not all relevant target groups are included in sensitisations (eg men, adolescent girls)</i>	- Revise SBCC strategy, structured, context specific, based on research - Target group specific message / IEC - Target all the community including men, adolescent girls, women etc	- Nutrition Sector - UNICEF, UNHCR, WFP - All sector partners	October
QUALITY OF CARE IN NUTRITION SERVICES	<i>Carers do not perceive RUTF or WSB++ as therapeutic food and therefore share with other family members or sell in market (i.e. problems with information shared at point of distribution).</i>	- Intensify counselling during distribution highlighting that RUTF and WSB++ is not regular food - use visual aid materials - CNV should sensitize about RUTF, RUSF, WSB when they follow up at door-to-door visits - Sensitize key influencers such as block leaders, Imams "RUTF/WSB++ is a medicine and its importance) - Sensitization about RUTF/WSB++ at CiC meetings - Strengthening follow up of exact no of RUTF/WSB++ during treatment follow up days and conduct analysis on this at center level and take initiative - Changing messages "Your child is more sick now and that's why we are giving more RUTF/WSB++ so don't share"	- UNICEF, WFP, UNHCR - All sector partners	Start from 27 August
	<i>Poor interpersonal communication skills by service providers at nutrition facilities can't appropriately inter connect with right holders.</i>	- Training staffs on interpersonal communication - Provide regular supportive supervision to field staffs	- UNICEF with C4D - All sector partners	October
	<i>Long waiting time at nutrition facilities especially TSFP/BSFP sites</i>	- Follow treatment protocols and use triage approach were SAM and MAM children should be prioritized. - Increase HR depends on caseload	- BSFP/TSFP partners - WFP	Immediately

THEME	CHALLENGE	RECOMMENDATION	RESPONSIBLE AGENCIES	TIMELINE
		Decentralised sites (BSFP/TSFP) where it's feasible		
	<i>Inaccurate referral from community and health facilities leading to rejection of children</i>	- Strengthening OJT for staff - Training of health staffs on anthropometric measurements - Standardized measurement tools for all organization - Ensure the calibration of measuring tools as per protocol - Children referred to nutrition sites out of their catchment areas to be initially admitted and then referred appropriate nutrition sites for follow up visits	- UNICEF, UNHCR, WFP - All sector partners - Nutrition Sector - UNICEF to supply anthropometric equipment to all	Immediately
Interaction between OTP services, TSFP services and BSFP services	<i>Poor referral mechanism resulting in loss of follow up for some children from OTP to TSFP and vice versa</i>	- Identified cases to be escorted by CNVs across referral pathway - Referral slips with needed information to be provided (discharge /screening) - Separate measurement points for different services (i.e. BSFP & TSFP) consider ways to reduce the waiting time for new cases - Separate registered book for referral cases - Admission of referral cases should happen on the same day	- UNICEF, WFP, UNHCR - All sector partners	Immediately

7. ANNEXES

ANNEX 1: LIST OF SELECTED SUB-BLOCKS FOR SLEAC ASSESSMENT

SLEAC Zone	Upazila	Union	Site Name	Block ID	Local Block name
1	Ukhia	Palong Khali	Camp 01E	CXB-201-002	B1-112
1	Ukhia	Palong Khali	Camp 01E	CXB-201-013	I1-BB
1	Ukhia	Palong Khali	Camp 01E	CXB-201-025	I1-13
1	Ukhia	Palong Khali	Camp 01E	CXB-201-036	XXX
1	Ukhia	Palong Khali	Camp 01E	CXB-201-048	F-C2
1	Ukhia	Palong Khali	Camp 01E	CXB-201-059	Lomba sia
1	Ukhia	Palong Khali	Camp 01E	CXB-201-071	J-C2
1	Ukhia	Palong Khali	Camp 01E	CXB-201-082	J-C2
1	Ukhia	Palong Khali	Camp 01W	CXB-202-008	I-06
1	Ukhia	Palong Khali	Camp 01W	CXB-202-019	B-05
1	Ukhia	Palong Khali	Camp 01W	CXB-202-032	I1-10
1	Ukhia	Palong Khali	Camp 01W	CXB-202-043	I1-26
1	Ukhia	Palong Khali	Camp 01W	CXB-202-055	I-02
1	Ukhia	Palong Khali	Camp 01W	CXB-202-066	I
1	Ukhia	Palong Khali	Camp 01W	CXB-202-078	I-02
1	Ukhia	Palong Khali	Camp 02E	CXB-203-005	A-03
1	Ukhia	Palong Khali	Camp 02E	CXB-203-018	XXX
1	Ukhia	Palong Khali	Camp 02E	CXB-203-029	XXX
1	Ukhia	Palong Khali	Camp 02E	CXB-203-041	K-08
1	Ukhia	Palong Khali	Camp 02E	CXB-203-053	A1-NEW
1	Ukhia	Palong Khali	Camp 02W	CXB-204-005	E
1	Ukhia	Palong Khali	Camp 02W	CXB-204-017	DD-20
1	Ukhia	Palong Khali	Camp 02W	CXB-204-031	DD-14
1	Ukhia	Palong Khali	Camp 02W	CXB-204-042	E-01
1	Ukhia	Palong Khali	Camp 03	CXB-205-007	DD
1	Ukhia	Palong Khali	Camp 03	CXB-205-018	DD19
1	Ukhia	Palong Khali	Camp 03	CXB-205-030	DD-12
1	Ukhia	Palong Khali	Camp 03	CXB-205-043	B-08
1	Ukhia	Palong Khali	Camp 03	CXB-205-056	DD
1	Ukhia	Palong Khali	Camp 03	CXB-205-067	27-No
1	Ukhia	Palong Khali	Camp 03	CXB-205-079	NULL
1	Ukhia	Palong Khali	Camp 04	CXB-206-003	AA
1	Ukhia	Palong Khali	Camp 04	CXB-206-015	AA-OO
1	Ukhia	Palong Khali	Camp 04	CXB-206-027	DD
1	Ukhia	Palong Khali	Camp 04	CXB-206-039	DD
1	Ukhia	Palong Khali	Camp 04	CXB-206-051	UU-4
1	Ukhia	Raja Palong	Kutupalong RC	CXB-221-002	E-01
2	Ukhia	Palong Khali	Camp 05	CXB-209-012	Camp5
2	Ukhia	Palong Khali	Camp 05	CXB-209-025	Gundum-2-F
2	Ukhia	Palong Khali	Camp 05	CXB-209-037	EE
2	Ukhia	Palong Khali	Camp 05	CXB-209-049	G-02
2	Ukhia	Palong Khali	Camp 06	CXB-208-011	XXX
2	Ukhia	Palong Khali	Camp 06	CXB-208-023	XXX

2	Ukhia	Palong Khali	Camp 06	CXB-208-035	XXX
2	Ukhia	Palong Khali	Camp 07	CXB-207-009	XXX
2	Ukhia	Palong Khali	Camp 07	CXB-207-024	XXX
2	Ukhia	Palong Khali	Camp 07	CXB-207-037	A
2	Ukhia	Palong Khali	Camp 07	CXB-207-049	A-01
2	Ukhia	Palong Khali	Camp 07	CXB-207-063	NULL
2	Ukhia	Palong Khali	Camp 08E	CXB-210-008	B-82
2	Ukhia	Palong Khali	Camp 08E	CXB-210-020	B-72
2	Ukhia	Palong Khali	Camp 08E	CXB-210-032	B-91
2	Ukhia	Palong Khali	Camp 08E	CXB-210-046	B-79
2	Ukhia	Palong Khali	Camp 08E	CXB-210-058	B-15
2	Ukhia	Palong Khali	Camp 08E	CXB-210-070	B-28
2	Ukhia	Palong Khali	Camp 08W	CXB-211-002	F-29
2	Ukhia	Palong Khali	Camp 08W	CXB-211-015	A-39
2	Ukhia	Palong Khali	Camp 08W	CXB-211-028	F-01
2	Ukhia	Palong Khali	Camp 08W	CXB-211-040	I-10
2	Ukhia	Palong Khali	Camp 08W	CXB-211-053	A-14
2	Ukhia	Palong Khali	Camp 08W	CXB-211-065	A-66
2	Ukhia	Palong Khali	Camp 09	CXB-213-008	F-04
2	Ukhia	Palong Khali	Camp 09	CXB-213-020	C-19
2	Ukhia	Palong Khali	Camp 09	CXB-213-032	E-02
2	Ukhia	Palong Khali	Camp 09	CXB-213-045	C-18
2	Ukhia	Palong Khali	Camp 09	CXB-213-057	H-01
2	Ukhia	Palong Khali	Camp 09	CXB-213-069	A-05 Mukter School
2	Ukhia	Palong Khali	Camp 09	CXB-213-081	B-01 Madrasha
2	Ukhia	Palong Khali	Camp 10	CXB-214-003	F-11
2	Ukhia	Palong Khali	Camp 10	CXB-214-016	XXX
2	Ukhia	Palong Khali	Camp 10	CXB-214-029	XXX
2	Ukhia	Palong Khali	Camp 10	CXB-214-041	XXX
2	Ukhia	Palong Khali	Camp 10	CXB-214-054	G-28
2	Ukhia	Palong Khali	Camp 10	CXB-214-066	H-38
2	Ukhia	Palong Khali	Camp 10	CXB-214-079	F-32
3	Ukhia	Palong Khali	Camp 11	CXB-217-009	H-08
3	Ukhia	Palong Khali	Camp 11	CXB-217-020	E-12
3	Ukhia	Palong Khali	Camp 11	CXB-217-031	C10-C9
3	Ukhia	Palong Khali	Camp 11	CXB-217-042	B17-A11
3	Ukhia	Palong Khali	Camp 11	CXB-217-053	A8-B4
3	Ukhia	Palong Khali	Camp 11	CXB-217-065	B-11
3	Ukhia	Palong Khali	Camp 11	CXB-217-076	B1-I6
3	Ukhia	Palong Khali	Camp 12	CXB-218-007	F-08
3	Ukhia	Palong Khali	Camp 12	CXB-218-018	H-06
3	Ukhia	Palong Khali	Camp 12	CXB-218-029	G4-C26
3	Ukhia	Palong Khali	Camp 12	CXB-218-040	J-7(F-7)
3	Ukhia	Palong Khali	Camp 13	CXB-220-005	B-16
3	Ukhia	Palong Khali	Camp 13	CXB-220-016	B-09
3	Ukhia	Palong Khali	Camp 13	CXB-220-027	A-06
3	Ukhia	Palong Khali	Camp 13	CXB-220-039	C_08
3	Ukhia	Palong Khali	Camp 13	CXB-220-051	C-15
3	Ukhia	Palong Khali	Camp 13	CXB-220-062	

3	Ukhia	Palong Khali	Camp 13	CXB-220-073	
3	Ukhia	Palong Khali	Camp 13	CXB-220-085	
3	Ukhia	Palong Khali	Camp 17	CXB-212-010	H-73
3	Ukhia	Palong Khali	Camp 17	CXB-212-021	H-71
3	Ukhia	Palong Khali	Camp 17	CXB-212-032	XXX
3	Ukhia	Palong Khali	Camp 18	CXB-215-006	L-01
3	Ukhia	Palong Khali	Camp 18	CXB-215-018	L-09
3	Ukhia	Palong Khali	Camp 18	CXB-215-029	M-11
3	Ukhia	Palong Khali	Camp 18	CXB-215-040	H-64
3	Ukhia	Palong Khali	Camp 18	CXB-215-051	XXX
3	Ukhia	Palong Khali	Camp 18	CXB-215-062	H-52
3	Ukhia	Palong Khali	Camp 19	CXB-219-010	A-10
3	Ukhia	Palong Khali	Camp 19	CXB-219-026	D-14
3	Ukhia	Palong Khali	Camp 19	CXB-219-038	D-17
3	Ukhia	Palong Khali	Camp 19	CXB-219-050	XXX
3	Ukhia	Palong Khali	Camp 19	CXB-219-061	XXX
3	Ukhia	Palong Khali	Camp 20	CXB-216-006	M-25
3	Ukhia	Palong Khali	Camp 20	CXB-216-017	XXX
4	Ukhia	Palong Khali	Camp 14	CXB-222-006	D-15
4	Ukhia	Palong Khali	Camp 14	CXB-222-012	D-02
4	Ukhia	Palong Khali	Camp 14	CXB-222-022	D-13
4	Ukhia	Palong Khali	Camp 14	CXB-222-028	D-04
4	Ukhia	Palong Khali	Camp 14	CXB-222-039	D-02
4	Ukhia	Palong Khali	Camp 14	CXB-222-048	D-04
4	Ukhia	Palong Khali	Camp 15	CXB-223-002	G-15
4	Ukhia	Palong Khali	Camp 15	CXB-223-009	F
4	Ukhia	Palong Khali	Camp 15	CXB-223-015	G-22
4	Ukhia	Palong Khali	Camp 15	CXB-223-022	E-03
4	Ukhia	Palong Khali	Camp 15	CXB-223-028	H
4	Ukhia	Palong Khali	Camp 15	CXB-223-034	E-03
4	Ukhia	Palong Khali	Camp 15	CXB-223-041	EE-3
4	Ukhia	Palong Khali	Camp 15	CXB-223-047	F-02
4	Ukhia	Palong Khali	Camp 15	CXB-223-054	E3-11
4	Ukhia	Palong Khali	Camp 15	CXB-223-060	E-03
4	Ukhia	Palong Khali	Camp 15	CXB-223-066	E-13
4	Ukhia	Palong Khali	Camp 15	CXB-223-073	EE-6
4	Ukhia	Palong Khali	Camp 15	CXB-223-079	F-38
4	Ukhia	Palong Khali	Camp 15	CXB-223-085	G-37
4	Ukhia	Palong Khali	Camp 16	CXB-224-003	D-02
4	Ukhia	Palong Khali	Camp 16	CXB-224-009	A-01
4	Ukhia	Palong Khali	Camp 16	CXB-224-021	D-08
4	Ukhia	Palong Khali	Camp 16	CXB-224-027	A
4	Ukhia	Palong Khali	Camp 16	CXB-224-033	A-01
4	Ukhia	Palong Khali	Camp 16	CXB-224-043	A-01
4	Ukhia	Palong Khali	Camp 16	CXB-224-052	A-01
4	Ukhia	Palong Khali	Camp 16	CXB-224-062	D-06
5	Teknaf	Whykong	Camp 21 (Chakmarkul)	CXB-108-007	A-11
5	Teknaf	Whykong	Camp 21 (Chakmarkul)	CXB-108-022	A-05
5	Teknaf	Whykong	Camp 21 (Chakmarkul)	CXB-108-040	A-15

5	Teknaf	Whykong	Camp 22 (Unchiprang)	CXB-085-007	AA-01
5	Teknaf	Whykong	Camp 22 (Unchiprang)	CXB-085-018	B-31
5	Teknaf	Whykong	Camp 22 (Unchiprang)	CXB-085-031	B-89
5	Teknaf	Whykong	Camp 22 (Unchiprang)	CXB-085-042	AA-07
5	Teknaf	Whykong	Camp 22 (Unchiprang)	CXB-085-054	AA-01
5	Teknaf	Baharchhara	Camp 23 (Shamlapur)	CXB-032-013	A-04
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-017-014	C-01
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-038-014	C-10
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-041-006	C-10
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-044-017	B-69
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-044-031	B-36
5	Teknaf	Nhilla	Camp 24 (Leda)	CXB-047-009	C-06
5	Teknaf	Nhilla	Camp 25 (Ali Khali)	CXB-017-003	C-12
5	Teknaf	Nhilla	Camp 25 (Ali Khali)	CXB-017-018	C-11
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-001	D-12
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-013	B
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-027	D-10
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-039	C-07
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-053	C-02
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-025-066	D-12
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-037-038	G-01
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-037-049	H-07
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-037-060	E-03
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-037-071	H-50
5	Teknaf	Nhilla	Camp 26 (Nayapara)	CXB-044-004	C-02
5	Teknaf	Nhilla	Camp 27 (Jadimura)	CXB-037-007	H-01
5	Teknaf	Nhilla	Camp 27 (Jadimura)	CXB-037-018	D-13
5	Teknaf	Nhilla	Camp 27 (Jadimura)	CXB-037-030	H-03
5	Teknaf	Nhilla	Camp 27 (Jadimura)	CXB-037-085	H-01
5	Teknaf	Nhilla	Nayapara RC	CXB-025-076	NULL
5	Teknaf	Nhilla	Nayapara RC	CXB-089-011	C-02

ANNEX 2: TIMELINE OF COVERAGE ASSESSMENT

	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug
	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Preparation and training																																							
Travel to Bangladesh																																							
Meetings and briefing in Dhaka																																							
Travel to Cox's Bazar and meetings																																							
Sensitisation Training Cox's Bazaar																																							
Planning and supervisor training																																							
Surveyor training and field test																																							
Data collection																																							
Zone 1 data collection																																							
Zone 2 data collection																																							
Zone 3 data collection																																							
Zone 4 data collection																																							
Zone 5 data collection																																							
Preparation and training for qualitative study																																							
Additional qualitative studies and data analysis																																							
Compilation of results																																							
Results sharing and report writing																																							
National holiday																																							
Presentation of results to stakeholders																																							
Return to Dhaka																																							
Travel back to London																																							
Report writing and finalisation																																							

ANNEX 3: LIST OF PARTICIPANTS OF ASSESSMENT TEAM

TEAM	NAME	TEAM RESPONSIBILITY	ORGANISATION
Coordination	Hugh Lort-Phillips	Assessment Coordinator	ACF UK
Coordination	Md. Lalon Miah	Assessment Manager	ACF
Coordination	Md, Saiful Islam Talukder	Assessment Supervisor	ACF
SLEAC Team-1	Md Sujan Ariful	Team Focal	Save The Children
	Md. Zafar Sadek	Measurer	ACF
	Lilmony Dey	Measurer Assistant	ACF
	Umme Kulsuma Rabeya Bashry	Interviewer	ACF
SLEAC Team-2	Mohammad Mobarak Hossain	Team Focal	BRAC
	Mohammad Salah Uddin	Measurer	ACF
	Md. Mahbub Hasan	Measurer Assistant	ACF
	Zeasmin Akter Putul	Interviewer	ACF
SLEAC Team-3	Sahin Emtazur Rahman	Team Focal	UNHCR
	Aminul Islam	Measurer	ACF
	Alamgir Alam	Measurer Assistant	ACF
	Rumpha Barua	Interviewer	ACF
SLEAC Team-4	Md Rasel	Team Focal	WFP
	Bondhu Komol Das	Measurer	ACF
	Md. Sazzad Hossain	Measurer Assistant	ACF
	Asmaul Husna	Interviewer	ACF
SLEAC Team-5	Md. Mahedi Hasan	Team Focal	SHED
	Mohammad Wohiduzzaman	Measurer	ACF
	Md. Shahidul Islam	Measurer Assistant	ACF
	Salma Nasrin Liza	Interviewer	ACF
SLEAC Team-6	Ariful Isalm	Team focal	SHED
	Md. Kamaruzzaman Mridha	Measurer	ACF
	Md. Imran Hossen	Measurer Assistant	ACF
	Hasna Riaz Hadis	Interviewer	ACF
SLEAC Team-7	Mahbubur Rahman	Team Focal	SCI
	Md. Shahinur Islam	Measurer	ACF
	Abu Rasel	Measurer Assistant	ACF
	Mahmuda Akter Juli	Interviewer	ACF
SLEAC Team-8	Md. Siddiqur Rahman	Team Focal	Care Bangladesh
	Md. Nazrul Islam	Measurer	ACF
	Md. Aklasur Rahman Chy	Measurer Assistant	ACF
	Yesmin Akter	Interviewer	ACF
SLEAC Team-9	Mosarof Hossain	Team Focal	ACF
	Md. Suruzzaman	Measurer	ACF
	Md. Zahangir Alam	Measurer Assistant	ACF
	Kahinur Akter Ginuk	Interviewer	ACF
SLEAC Team-10	Shahab Uddin	Team Focal	ACF
	Md. Mosharraf Hossain	Measurer	ACF
	Mohammed Ashek Ullah Sarwar	Measurer Assistant	ACF
	Jubaiara Vegum	Interviewer	ACF
SLEAC Team-11	Imran Bin Kayes	Team Focal	SCI
	Md. Jahangir Shah	Measurer	ACF
	Sahadat Hossain Shahed	Measurer Assistant	ACF
	Sumya Tahsin	Interviewer	ACF
SLEAC Team-12	Mizan Nur Rahman	Team Focal	TDH
	Md. Abul Kashem Chowdhury	Measurer	ACF

	Amiya Jiban Chakma	Measurer Assistant	ACF
	Nasima Akter	Interviewer	ACF
SLEAC Team-13	Masum Billah	Team Focal	SARPV
	Kanan Chakma	Measurer	ACF
	Md. Faisal Mahmud	Measurer Assistant	ACF
	Sabiha Jannat	Interviewer	ACF
SLEAC Team-14	Md Moktarul Islam	Team Focal	WVI
	Md. Azizur Rahaman	Measurer	ACF
	Kiran Bikash Chakma	Measurer Assistant	ACF
	Minuara Begum	Interviewer	ACF
Qualitative Team 1	Moniruzzaman	Lead Investigaator 1	ACF
	Rajesh Chandra Paul	Lead Investigaator 2	Concern WW
	Jahad Hossen	Assistant Investigator	ACF
	Morium Nasrin	Assistant Investigator	ACF
Qualitative Team 2	Farhana Akter Bithi	Lead Investigaator	UNICEF
	Md.Salah Uddin Kamal Sagor	Assistant Investigator	ACF
	Tufa Akter	Assistant Investigator	ACF

ANNEX 4: QUESTIONNAIRE FOR NON-COVERED CASES IDENTIFIED DURING SLEAC ASSESSMENT

Team: _____		Name of interviewer: _____	
Zone: _____		Date: _____	
Camp: _____	Block ID: _____	Nearest OTP / TSFP: _____	Distance: ☐ Near (<10 mins) ☐ Far (10-20 mins) ☐ Very far (>20 mins)
Gender: ☐ Male ☐ Female	Age (in months): _____	Oedema (circle correct value): + ++ +++ n/a	
MUAC (mm): _____	Height (cm): _____	Weight (kg): _____	WFH Z-score: ☐ <-3 ☐ -2 to -3 ☐ >-2
Child status: ☐ Child is SAM ☐ Child is MAM ☐ Child is Well-nourished			

1. Do you think your child is ill?

☐ Yes ☐ No → Q4

1a. What symptoms is your child suffering from?

☐ a. Vomiting	☐ b. Fever	☐ c. Diarrhoea
☐ d. Weight loss	☐ e. Loss of appetite	☐ f. Apathy
☐ g. Swelling	☐ h. Loss of hair	☐ i. Skin lesion
☐ j. Difficulty breathing	☐ k. Cough / runny nose	☐ l. Other, please specify: _____

1b. What illness has caused these symptoms?

☐ a. I don't know	☐ b. Malnutrition	☐ c. Spiritual disease/witchcraft
☐ d. Malaria	☐ e. Diarrhoea	☐ f. Skin disease
☐ g. Worm infestation	☐ h. Other, please specify: _____	

1c. How have you tried to treat this illness or how are you going to treat it?

☐ a. Consultation at general hospital	☐ b. Consultation in private clinic	☐ c. No treatment
☐ d. Medicinal products (bought at the pharmacy)	☐ e. Medicinal products (bought at the market)	☐ f. Other, please specify: _____

1d. Who made a decision about the choice of treatment?

☐ a. Mother	☐ b. Father	☐ c. Other family member
☐ d. CNV	☐ e. Health personnel	☐ f. Other. Please specify: _____

2. Do you know that there is a service at the health facility dedicated to the treatment of malnutrition? What do you know about this service?

☐ Yes, _____ ☐ No → STOP

3. Why didn't you bring your child to the health facility for the treatment?

☐ a. Too far; distance in km _____ how many hours on foot? ☐ c. Inaccessibility (monsoon, seasonal flooding, etc.) ☐ e. Non-availability of the company for the journey ☐ g. Husband/family refusal ☐ i. Carer ill ☐ k. Too busy; reason: _____ ☐ m. Ashamed to enrol in the programme ☐ o. Fear of hospital stay (away from HH, fees)	☐ b. Insecurity ☐ d. Non-availability of means of transportation ☐ f. Long waiting time ☐ h. Collection of other relief goods ☐ j. Family member ill ☐ l. No-one to look after other children ☐ n. Lack of conviction that the programme can help the child ☐ p. Preference of traditional treatment
--	---

- ☐ q. Previous rejection of a child; when? _____
- ☐ s. Quantity of PlumpyNut® is too little to justify the journey

- ☐ r. Rejection of a known child
- ☐ t. Other. Please specify:

4. Has your child been already enrolled in CMAM programme?

- ☐ Yes ☐ No → **STOP**

4a. Why isn't your child still in the programme?

- | | | |
|---|---|--|
| ☐ a. Defaulted | a ¹ . When? ☐ < 2 weeks ☐ 2-4 weeks ☐ > 1 month | ☐ a ² . Why? _____ |
| ☐ b. Discharged as cured | b ¹ . When? ☐ < 2 weeks ☐ 2-4 weeks ☐ > 1 month | |
| ☐ c. Discharged but not cured | c ¹ . When? ☐ < 2 weeks ☐ 2-4 weeks ☐ > 1 month | ☐ c ² . Why? _____ |
| ☐ d. Other reason, please specify: _____ | | STOP |

Thank you!

Comments:

ANNEX 5: QUESTIONNAIRE FOR COVERED CASES IDENTIFIED DURING SLEAC ASSESSMENT

Team: _____		Name of interviewer: _____	
Zone: _____		Date: _____	
Camp: _____	Block ID: _____	Nearest OTP / TSFP: _____	Distance: ☐ Near (<10 mins) ☐ Far (10-20 mins) ☐ Very far (>20 mins)
Gender: ☐ Male ☐ Female	Age (in months): _____	Oedema (circle correct value): + ++ +++ n/a	
MUAC (mm): _____	Height (cm): _____	Weight (kg): _____	WFH Z-score: ☐ <-3 ☐ -2 to -3 ☐ >-2
Child status: ☐ Child is SAM ☐ Child is MAM ☐ Child is Well-nourished			
IF OTP, proof that child is in programme:	☐ OTP treatment card	☐ Packet of PlumpyNut	☐ Verification by CNV
IF TSFP, proof that child is in programme:	☐ TSFP treatment card	☐ Packet of WSB++ (received every 2 weeks)	☐ Verification by CNV

1. Is this the first time that your child has been enrolled in the OTP / TSFP programme?

☐ Yes → Q5

☐ No → Q2

2. How many times has your child been enrolled in the OTP /TSFP programme?

☐ 1

☐ 2

☐ 3

☐ >3

3. Why has your child returned to the programme?

☐ a. Child has discontinued the programme and returned.

a¹. Why? _____

☐ b. Child was cured and relapsed.

b¹. Why? _____

4. Do you have other children enrolled in the OTP / TSFP programme?

☐ Yes

a¹. How many?

☐ 1

☐ 2

☐ 3

☐ No

5. Why did you decide to enrol your child in the OTP / TSFP programme?

☐ a. Recognition of the disease

☐ c. Failed traditional treatment

☐ e. Short distance; estimation in km _____
How many minutes on foot? _____

☐ g. Accessibility (no seasonal barriers)

☐ i. Referral during a community screening

☐ k. Support and encouragement of the husband

☐ m. Support and encouragement of parents with SAM/MAM children

☐ o. Support and encouragement of neighbours

☐ q. Programme appreciated by the community

☐ s. Availability of RUTF

☐ u. Free service

☐ w. Known child cured

☐ y Other, please specify _____

☐ b. Disease diagnosed by health personnel

☐ d. Referral by traditional healer

☐ f. Minimal or non-existing security risks

☐ h. Availability of transport

☐ j. Availability of company during the journey to the health centre

☐ l. Support and encouragement of another family member

☐ n. Support and encouragement of a community health worker

☐ p. Support and encouragement of community leaders

☐ r. Programme staff is friendly and patient

☐ t. Availability of systematic treatment

☐ v. Efficiency of treatment (quick and visible results)

☐ x. Access to PlumpyNut®

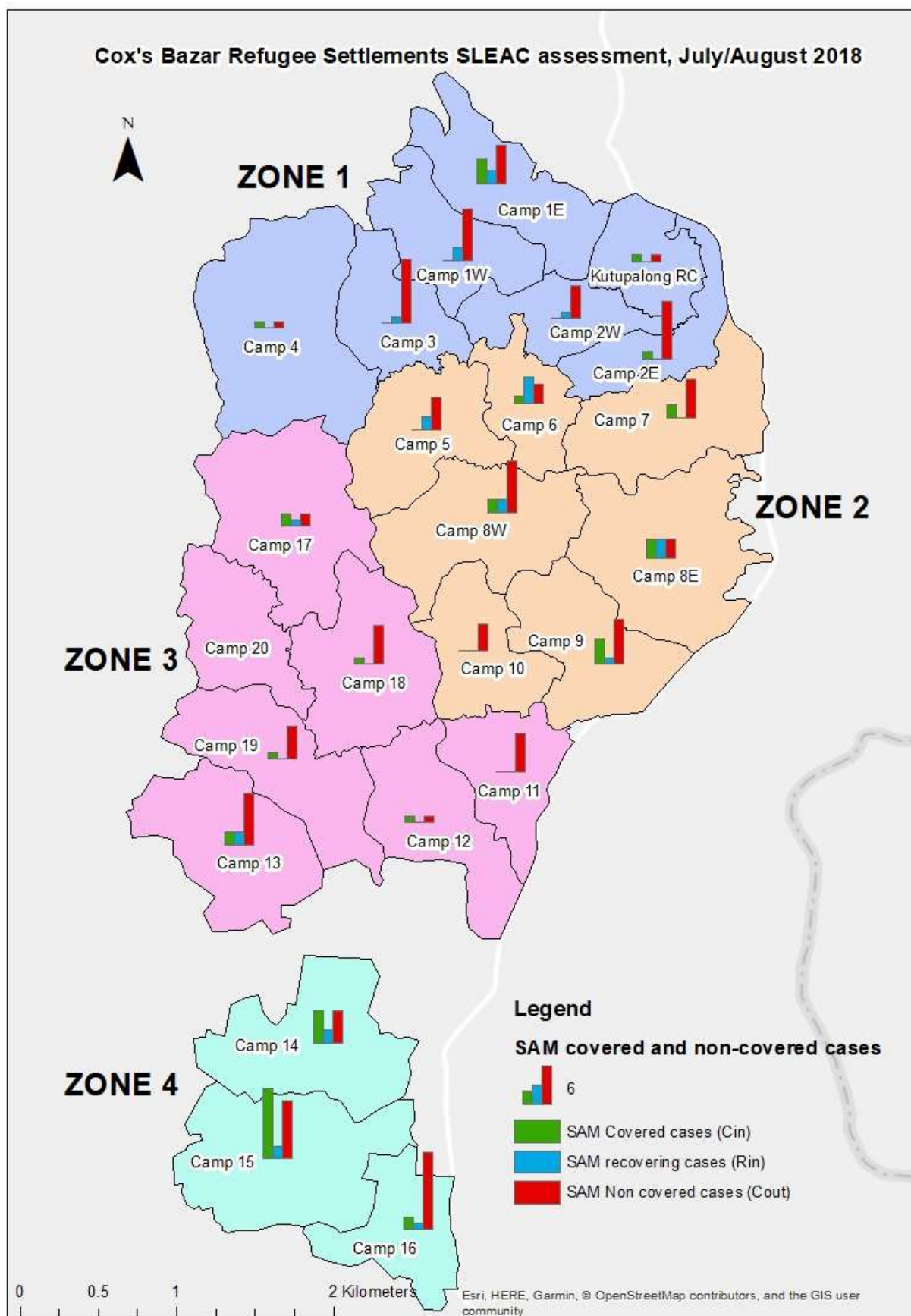
Thank you!

Comments:

ANNEX 6: SAM AND MAM CASE FINDING RESULTS BY CAMP

ZONE	CAMP	No. of blocks visited	SAM Cin	SAM Cout	SAM Rin	MAM Cin	MAM Cout	MAM Rin
Zone 1	Camp 1E	8	4	6	2	5	50	1
Zone 1	Camp 1W	7	0	8	2	5	37	3
Zone 1	Camp 2E	5	1	9	0	16	53	7
Zone 1	Camp 2W	4	0	5	1	9	31	5
Zone 1	Camp 3	7	0	10	1	17	62	8
Zone 1	Camp 4	5	1	1	0	14	20	6
Zone 1	Kutupalong RC	1	1	1	0	5	6	0
Zone 2	Camp 5	4	0	5	2	6	30	0
Zone 2	Camp 6	3	1	3	4	8	12	16
Zone 2	Camp 7	5	2	6	0	6	48	9
Zone 2	Camp 8E	6	3	3	3	17	18	11
Zone 2	Camp 8W	6	2	8	2	18	39	4
Zone 2	Camp 9	7	4	7	1	13	38	8
Zone 2	Camp 10	7	0	4	0	22	28	12
Zone 3	Camp 11	7	0	6	0	15	44	8
Zone 3	Camp 12	4	1	1	0	17	20	5
Zone 3	Camp 13	8	2	8	2	32	39	23
Zone 3	Camp 17	3	2	2	1	0	14	0
Zone 3	Camp 18	6	1	6	0	17	39	3
Zone 3	Camp 19	5	1	5	0	9	22	12
Zone 3	Camp 20	2	0	0	0	1	23	0
Zone 4	Camp 14	6	5	5	2	31	49	12
Zone 4	Camp 15	14	11	9	2	39	81	14
Zone 4	Camp 16	8	2	12	1	21	40	30
Zone 5	Camp 21	3	3	2	1	15	7	8
Zone 5	Camp 22	5	0	4	2	2	31	0
Zone 5	Camp 23	1	0	2	0	0	5	0
Zone 5	Camp 24	6	0	6	1	5	20	2
Zone 5	Camp 25	2	0	9	0	0	15	0
Zone 5	Camp 26	11	2	11	1	16	46	13
Zone 5	Camp 27	4	0	3	1	2	7	0
Zone 5	Nayapara RC	2	2	0	0	10	2	9
TOTAL		172	51	167	32	393	976	229

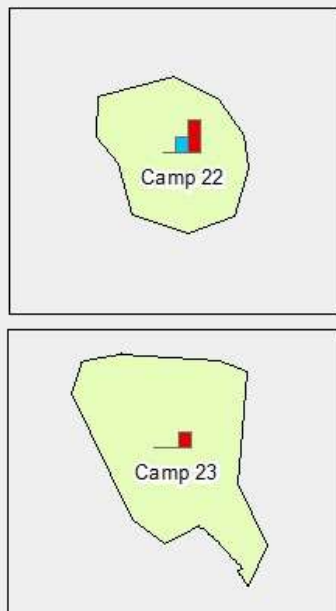
ANNEX 7: COVERED AND NON COVERED SAM CASES BY CAMP



Cox's Bazar Refugee Settlements SLEAC assessment, July/August 2018

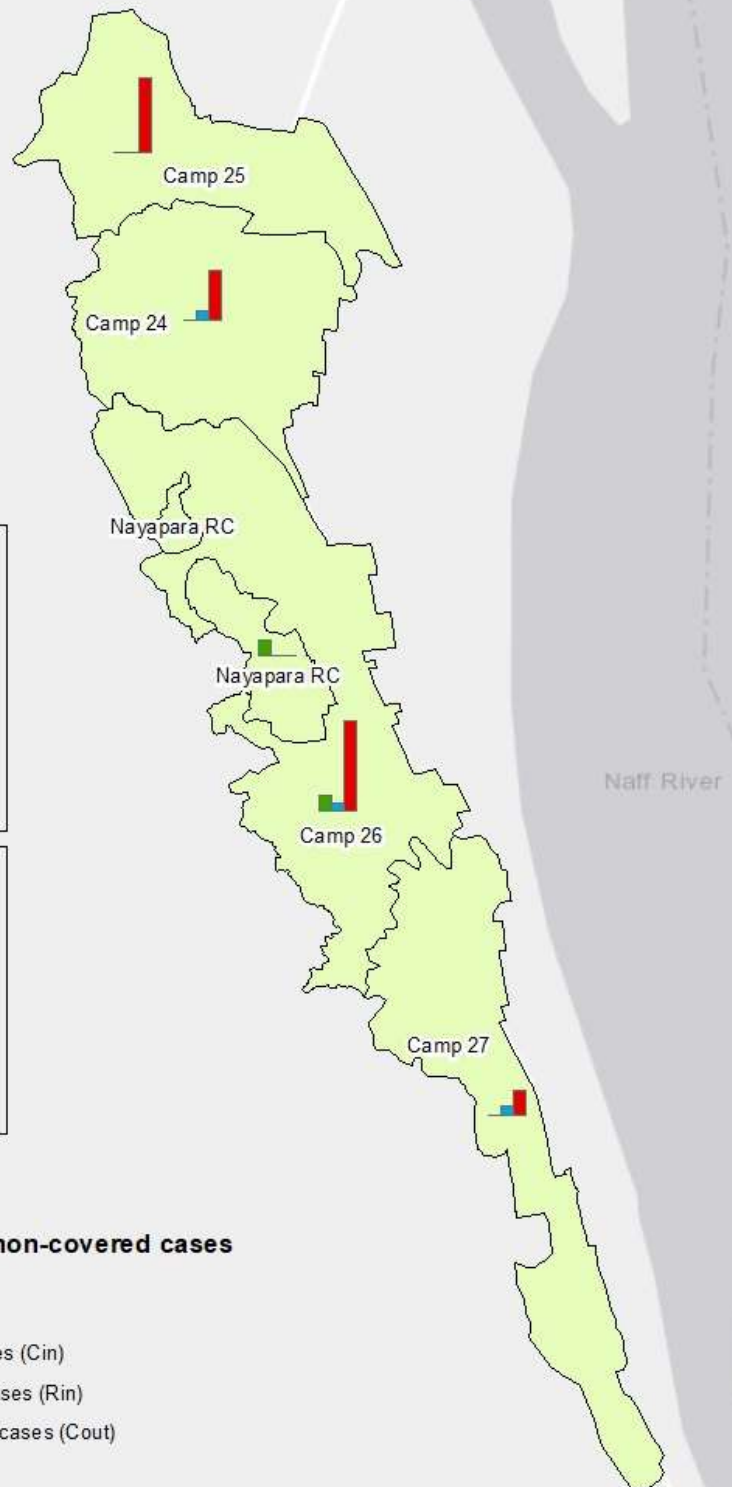
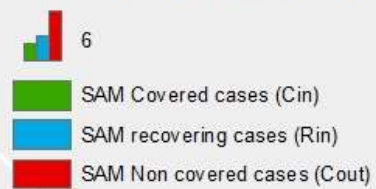


ZONE 5



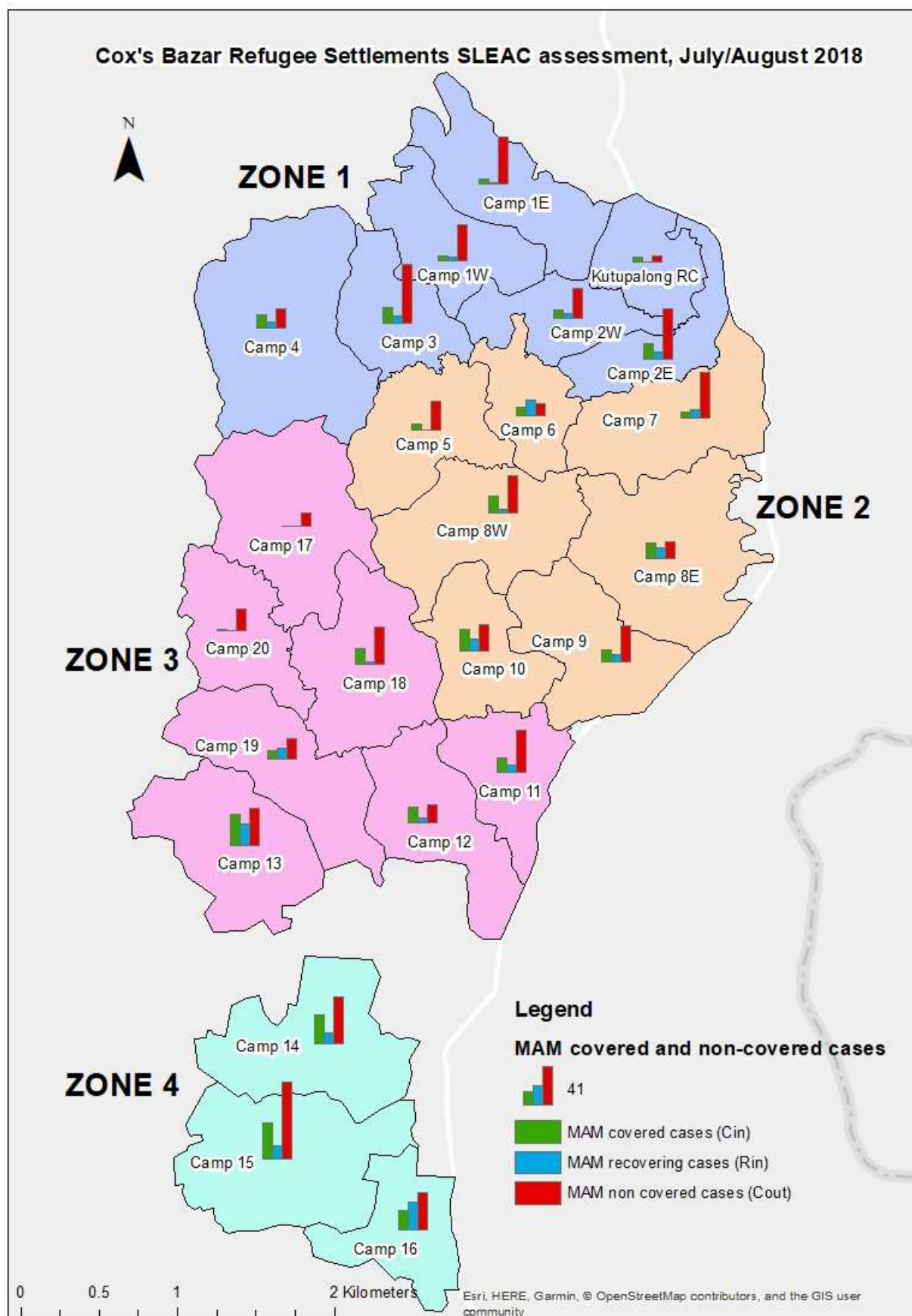
Legend

SAM covered and non-covered cases

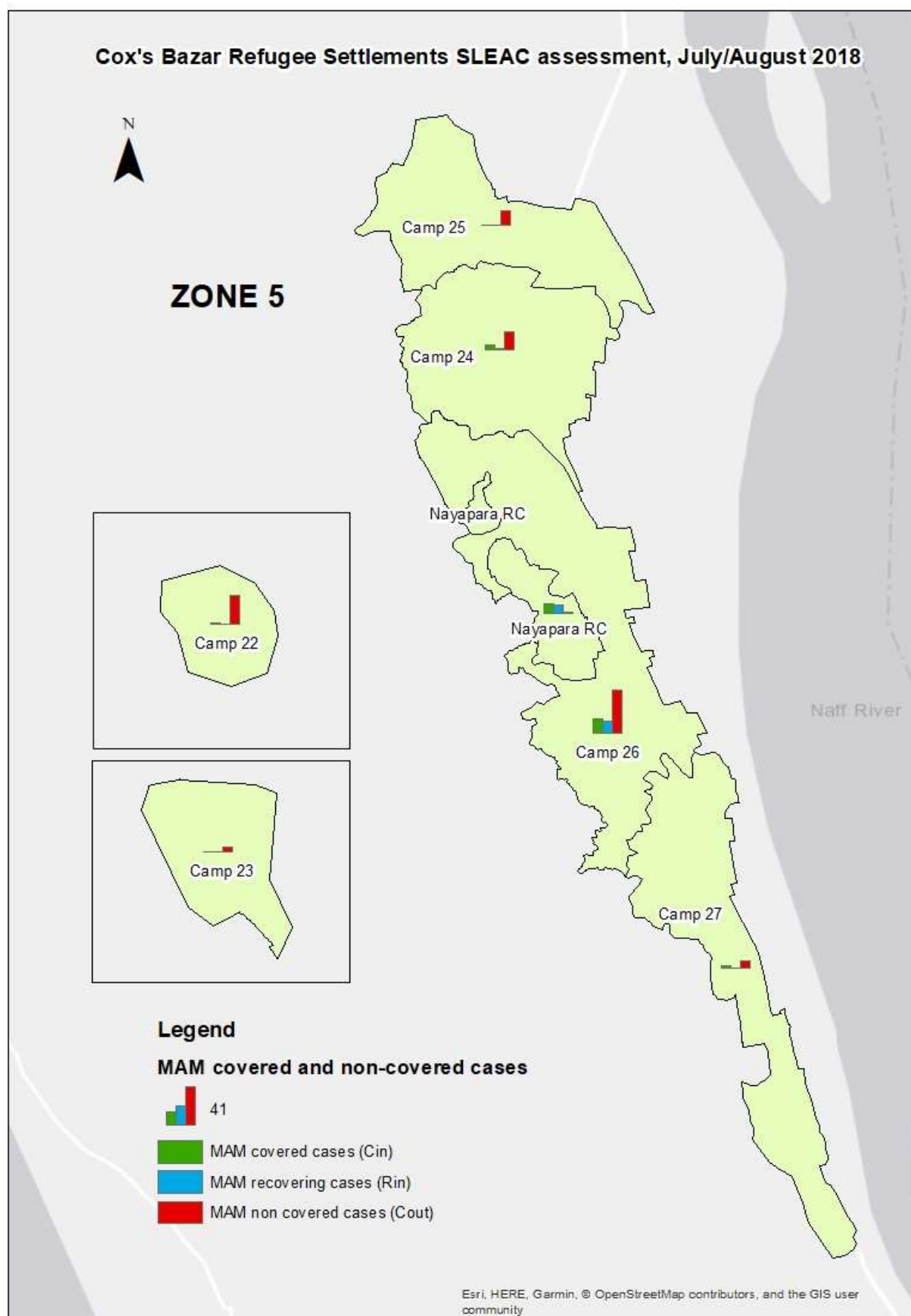


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ANNEX 8: COVERED AND NON COVERED MAM CASES BY CAMP



Cox's Bazar Refugee Settlements SLEAC assessment, July/August 2018



ANNEX 9: RESULTS OF SAM NON-COVERED CASES REFERRAL INVESTIGATION

Category	ACF	CWW	SARPV	SCI	SHED	TOTAL	Percentage
Child admitted to OTP following SLEAC	65	5	5	10	7	92	63%
Child already in OTP at time of SLEAC	9	2	0	1	3	15	10%
Child already in BSFP or TSFP at time of SLEAC therefore referred to OTP	5	7	0	0	0	12	8%
Child found to be from another camp therefore not admitted	0	1	2	4	1	8	5%
Carer had not gone to OTP at time of follow up	2	2	1	0	3	8	5%
Carer had refused to go to OTP	0	3	0	1	1	5	3%
Measurement discrepancy - child found by facility staff to not be SAM	0	0	1	1	1	3	2%
Child aged less than 6 months - not eligible for admission	0	1	0	2	0	3	2%
Child aged over 5 years - not eligible for admission	0	0	0	0	1	1	1%
TOTAL	81	21	9	19	17	147	