A mapping exercise and online survey to investigate continuity of care in acute malnutrition treatment in East Africa

August 2019

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Acronyms

AAH	Action Against Hunger
ASAL	Arid and semi-arid lands
BSFP	Blanket supplementary feeding programme
CMAM	Community-based management of acute malnutrition
ENN	Emergency Nutrition Network
ESARO	Eastern and Southern Africa Regional Office
FBF	Fortified blended foods
GAM	Global acute malnutrition
GNC	Global Nutrition Cluster
IMAM	Integrated management of acute malnutrition
LNS	Lipid-based nutrient supplement
MAM	Moderate acute malnutrition
MCHN	Maternal and child health and nutrition
MUAC	Mid-upper arm circumference
NGO	Non-governmental organisation
OTP	Outpatient therapeutic programme
RUSF	Ready-to-use supplementary food
RUTF	Ready-to-use therapeutic food
SAM	Severe acute malnutrition
SC	Stabilisation centre
SFP	Supplementary feeding programme
TSF(P)	Targeted supplementary feeding (programme)
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WCA	West and Central Africa
WCARO	West and Central Africa Regional Office
WFP	World Food Programme
WHO	World Health Organization
WHZ	Weight-for-height z-score
WVI	World Vision International

Contents

Summary

As part of an Emergency Nutrition Network (ENN) initiative to collate and appraise experience and evidence around the delivery of programmes in relation to continuum of care for acute malnutrition treatment, ENN undertook a mapping exercise and a review of current practice in severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) treatment in selected countries in East and West Africa between January and June 2019. This review considered 'continuum of care for acute malnutrition treatment' whereby a child receives appropriate and timely care to recovery along the acute malnutrition spectrum, including complicated cases. This constitutes part of a broader continuum of care that encompasses prevention.

Using existing data, the exercise aimed to gain insight into the extent to which United Nations (UN)- supported/led services for the treatment of children with SAM and MAM are aligned in these regions. Reflecting existing policy guidance and institutional arrangements, SAM treatment was examined as those services supported by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), and MAM treatment was examined in the form of targeted supplementary feeding programmes (TSFPs) delivered/supported by the World Food Programme (WFP). This report presents the findings of the review in East Africa.

Discussions with key stakeholders (UNICEF, WFP, WHO, the Global Nutrition Cluster (GNC) and UNHCR headquarters and regional offices, the CMAM Report (managed by Save the Children), Action Against Hunger (AAH) and World Vision International helped select target countries (Burundi, Ethiopia, Kenya, Rwanda, Somalia, South Sudan and Uganda); define parameters and methods for the review; and facilitate access to country-level data. An online survey was administered to representatives from government, UN and non-governmental organisations in the countries selected. Existing UN-sourced programme data was collated on SAM and MAM admissions and geographical/treatment coverage 2017-2018.

SAM treatment coverage data was provided by UNICEF for all seven selected countries, while data on geographical coverage was provided for Ethiopia, Rwanda, Burundi and Uganda. Regional MAM geographical and treatment coverage data was not available. Data relating to the alignment of and referral between services to treat SAM and MAM at national or sub-national level was not available, with the exception of Kenya. A total of 116 staff in the region responded to the online survey; the number and profile of respondents varied between countries.

Review constraints included varied data availability within the timeframe, multiple-sourced unharmonised data, varying definitions between and within agencies (especially regarding coverage), lack of contextual information for quantitative data (including seasonal service availability and service quality) and no direct consultation with government. Only TSFPs were directly examined as a treatment option for MAM (reflecting WFP's primary approach). The online survey is not representative of the region. Despite these limitations, the mapping exercise provides important insights into the appraisal and delivery of continuum of care for acute malnutrition.

The review identified huge effort and investment by government, agencies and individuals at regional, national and sub-national levels to collect data on SAM and MAM treatment. While fully appreciating this commitment, the data obtained points to gaps in the nature, availability and consistency of data to determine the extent to which a continuum of care for children with acute malnutrition is being achieved. When one agency has SAM/MAM service/data oversight, such as in Kenya (government), South Sudan (Nutrition Cluster) and UNHCR programmes, a clearer picture of service coherence was presented. Clarity on what constitutes continuity of care across different contexts and under different operational models is needed.

Both the data and reported experiences indicate that SAM treatment without MAM treatment (in the form of TSFPs) is commonplace. This pattern reflects differences in global strategies for the implementation of these two services; TSFPs are configured for delivery in emergency contexts that prioritise areas/populations of highest vulnerability, may be seasonal, and there is no UN ambition for 100% treatment coverage. SAM treatment scale-up and 100% coverage targets are delivered through an established system (health service) with widespread reach. Other options for MAM treatment (such as nutrition counselling and blanket supplementary feeding programme (BSFPs) were reported by country respondents.

One third of survey respondents reported early discharge of recovering SAM children once they reached MAM criteria, particularly in Kenya, Somalia and South Sudan; sometimes influenced by availability of a TSFP. This is a departure from WHO 2013 guidance on SAM treatment that recommends discharge on full recovery.

Although there are crossovers in SAM and MAM service implementation areas (and, to a limited extent, in protocols), SAM and MAM services are often not practically aligned in a way that is conducive to a continuum of care. Important aspects of this include limitations identified in the tracking of referrals, the need for clarity on how admission and discharge criteria for the services coherently fit together, lack of transparent data on complicated acute malnutrition management, and gaps in support for at-risk infants under six months of age.

Further information beyond what was identified in this review is likely available at national and sub-national level. Further investigation of the level and extent of gaps in information and potential ways to fill them will help provide a more secure basis for discussions on how best to identify shortfalls and track progress in continuity of care.

Based on how UN-supported SAM and MAM services are currently organised, identified areas of action to improve continuity of care include mechanisms to improve comprehensive data availability, improved and consistent calculation of coverage, aligned targeting criteria, co-ordination and mapping of services, addressing commodity pipeline issues, capacity development, investigating protocol adaptation/implementation, and research priorities.

Findings provide evidence for the need to improve visibility and deliverability of our collective ways of working to improve continuum of care for acutely malnourished children.

1 Introduction

Between January and June 2019, Emergency Nutrition Network (ENN) undertook a mapping exercise and a review of current practice to gain an insight into the extent to which UN-supported treatment of children with severe acute malnutrition (SAM) is aligned with treatment of children with moderate acute malnutrition (MAM) in East and West Africa ('continuum of care for acute malnutrition treatment'). In this review, continuum of care for acute malnutrition treatment considers that a child receives appropriate, timely care to recovery, whether they are moderately or severely acutely malnourished including complicated cases. This constitutes part of a broader continuum of care that encompasses prevention.

This exercise was part of a wider ENN initiative to collate and appraise experience and evidence around the delivery of UN-supported/led acute malnutrition treatment programmes in relation to continuum of care for acute malnutrition treatment[1]. In the context of existing policy guidance and institutional arrangements[2] and using secondary UN-sourced data, SAM treatment was examined as those services supported by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), and MAM treatment was examined in the form of targeted supplementary feeding programmes (TSFPs) delivered/supported by the World Food Programme (WFP).

This report presents the findings of the East Africa review from both the online survey (regional/country results) and the collection of data on admissions (2017-2018) for SAM and MAM treatment for those countries where both sets of data were available for comparison. Specifically, data is presented on: geographical and treatment coverage of SAM and MAM services; SAM and MAM admissions data by country; qualitative data from the online survey by country; and an insight into regional practice in the admission and referral of children with SAM and MAM. The report also presents and discusses data pertaining to admissions and referrals between SAM and MAM services, availability and coverage of services to treat acute malnutrition, and the continuum of care between the two. Recommendations are framed within existing operational arrangements with regard to improving the availability of data (including admissions, referrals, coverage); targeting criteria; coordination; mapping of SAM and MAM services and the linkages between them; addressing supply pipeline issues; harmonising service provision; building capacity for referral; and review/adaptation of protocols.

[1] This is collated in a special edition of Field Exchange on the continuum of acute malnutrition treatment (issue 60, July 2019). www.ennonline.net/fex

[2] See Box 2, Marie McGrath and Jeremy Shoham (2019). Editorial perspective on the continuum of care for children with acute malnutrition. *Field Exchange* issue 60, July 2019. p2. www.ennonline.net/fex/60/extendededitorial

2 Methods

The review comprised initial discussions with representatives from UNICEF, WFP, WHO and UNHCR headquarters and regional offices, the Global Nutrition Cluster (GNC), the CMAM Report (managed by Save the Children), Action Against Hunger (AAH) and World Vision International (WVI) to help define parameters and methods for the review; an online survey administered to representatives from government, UN and non-governmental organisations in selected countries in the region; and collection and collation of existing UN-sourced programme data on SAM and MAM admissions and geographical/treatment coverage 2017-2018.

Initial discussions were held with UNICEF Eastern and Southern Africa Regional Office (EASRO) and WFP Regional Office to help ENN identify countries of focus and to inform the review parameters, data sources and most appropriate methods to use, based on the availability of data on SAM and MAM treatment at regional and country level and in the time available, and to facilitate access to country offices. Discussions were also held with WFP, WHO and UNHCR headquarters; UNHCR East Horn and Great Lakes (EHAGL) and the GNC to present the review, gather inputs and further inform methods, and facilitate contact with country offices.

Countries of focus for the review were proposed by the regional UNICEF and WFP offices as those which fall within the same regional zones for both agencies. For East Africa, selected countries were: Burundi, Ethiopia, Kenya, Rwanda, Somalia, South Sudan and Uganda. Sub-national MAM and SAM admissions data for both 2017 and 2018 was provided for Burundi, Ethiopia and South Sudan.

It was established during discussions that data on SAM and MAM admissions, performance and geographical and treatment coverage was available at country level and, in some cases, at sub-national level. However, it was noted that data relating to the alignment of and referral between services to treat SAM and MAM at national or sub-national level was not collected/collated in standard SAM and MAM reporting formats. This type of information would need to be derived from records kept at district/facility level, or by individual agencies at country level, which was not possible within the review timeframe and capacity available. The exception to this was Kenya, where data on referrals between TSFPs and outpatient therapeutic programmes (OTPs)/ stabilisation centres (SCs) are recorded systematically in all districts; this is therefore presented in the relevant section.

Given the parameters above, the review aimed to collect and compare SAM and MAM admissions data at sub-national level for each country selected in order to identify geographical crossover or lack thereof and compare admissions data, caseload and

geographical coverage for both services. Although it is not possible to tell the degree of convergence and pinpoint the co-location of MAM and SAM services from this type of data, this exercise provides insights and helps to highlight areas for more in-depth investigation and analysis. Data were collected from the respective regional Nutrition Data Managers of WFP and UNICEF separately, and collated by country by ENN, except for Kenya and South Sudan, where MAM and SAM treatment data for 2017 and 2018 was provided to ENN in combined form by the Government (Kenya) and the National Nutrition Cluster (South Sudan). With the exception of Ethiopia, data on treatment and geographical coverage was available on SAM only and is presented in section 3.1. National and sub-national data for both SAM and MAM admissions (2017-2018) was provided for Burundi, Ethiopia, Kenya, Somalia, South Sudan and Uganda; these results are presented in section 3.2.

In addition, UNHCR EHAGL regional office conducted and shared its own mapping of alignment of available services for SAM and MAM for refugee populations in the region (for the selected countries), although admissions and coverage data is not currently available. This is presented in section 3.4.

ENN reviewers also contacted CMAM Report[3], AAH and WVI with the aim of consulting their SAM/MAM treatment databases to capture more detailed information about alignment of services in selected countries and referrals between them, in addition to the admissions figures provided by Ministries of Health, WFP and UNICEF at national level. CMAM Report was not able to provide access to its country databases as legal permission is required from each contributing agency. While data is collected by AAH, the additional resources and time necessary to collate it was beyond AAH's capacity within the review timeframe. WVI provided databases from some of the countries selected; however information on referrals was not sufficiently detailed to include in the review.

To complement the quantitative data available and to gain an insight into field experiences and practices, an online survey (in English and French) was administered through UNICEF, WFP, WHO and Cluster country offices to government, United Nations (UN) and non-governmental organisation (NGO) actors working in the management of acute malnutrition in the seven selected countries. Information was gathered on:

- Respondent profile (region and country of operation, type of agency, role, administrative level);
- Approach to treatment of acute malnutrition and types of service provided;
- SAM treatment – protocols, stand-alone or integrated services, admission and discharge criteria, referrals between services for acute malnutrition (outpatient facilities, inpatient facilities, TSFPs and other services), monitoring of referrals;
- MAM treatment – protocols, admission and discharge criteria, stand-alone or integrated services, referrals between services for acute malnutrition, monitoring of referrals, types of product;
- Barriers to ensuring continuum of care for acute malnutrition;
- Good models of continuum of care/how continuum of care for acute malnutrition can be improved.

The full survey questionnaire can be found in *Annex 1*.

Limitations

This review was conducted over a short period of time (five months), with a limited number of days, allowing only for data collection at regional/national level, limited consultation with agencies, and no direct consultation with government staff. Not all countries in the region were selected. The data collected was secondary and from multiple sources, with consequently varying definitions, particularly in relation to coverage. High geographical coverage does not necessarily mean services are available all year round or are of adequate quality. The data is presented in most instances without contextual information, which limits analysis and interpretation. In terms of the qualitative feedback in the online survey, the number of respondents varied greatly by country and not all respondents answered all questions; thus the survey is not representative and results should be interpreted cautiously. More data may have been available or collated at a country level, but the pressure on and priorities of busy staff may have limited making it available to the review.

Note that the SAM-related data presented in this report is from a UNICEF regionally held database, which is regularly updated and not always complete; hence data is subject to change.

[3] A comprehensive monitoring and reporting package for community-based management of acute malnutrition hosted by Save the Children, www.cmamreport.com

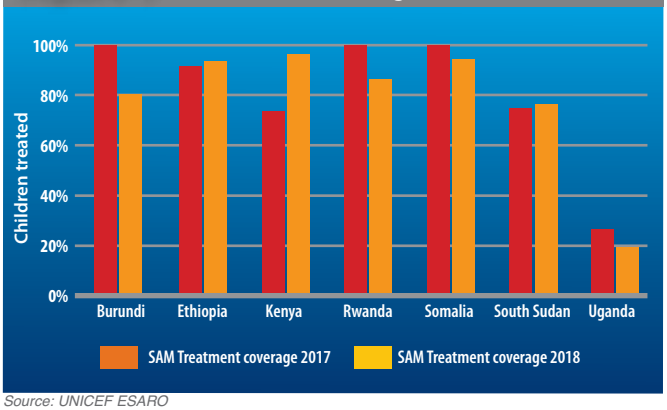
3 Results

This section presents and considers the data provided on SAM and MAM admissions and treatment coverage, collected where available from the selected countries, and the results of the online survey, for the East Africa region. Overall results for the region and by country are provided. Regional MAM geographical and treatment coverage data was not available. Regarding the survey, regional results can be found in section 3.3 and a summary of key findings by country is given in the country section.

Definitions of coverage

Burden is calculated from estimates of prevalence, population and incidence. SAM geographical coverage is calculated as the number of health facilities treating SAM out of the total number of health facilities in a country. Where MAM treatment coverage was available (Ethiopia), treatment coverage was calculated as number treated relative to programme targets. Estimates of treatment coverage are calculated as the number of children treated as a proportion of the estimated overall burden.

Figure 1 SAM Treatment coverage East Africa, 2017-2018



Source: UNICEF ESARO

Figure 2 SAM Geographical coverage East Africa 2017-2018 *(where data available)*

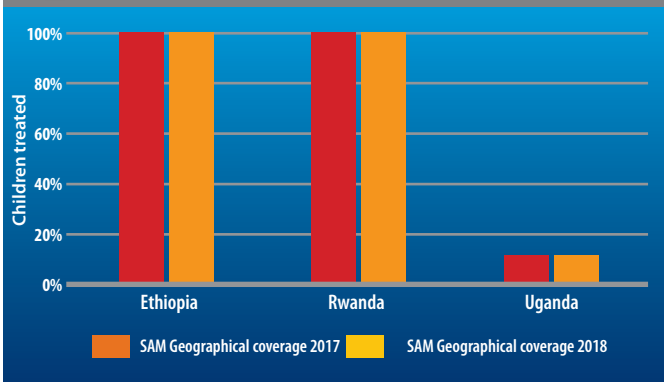


Figure 3 MAM Treatment and Geographical coverage, Ethiopia 2017-2018

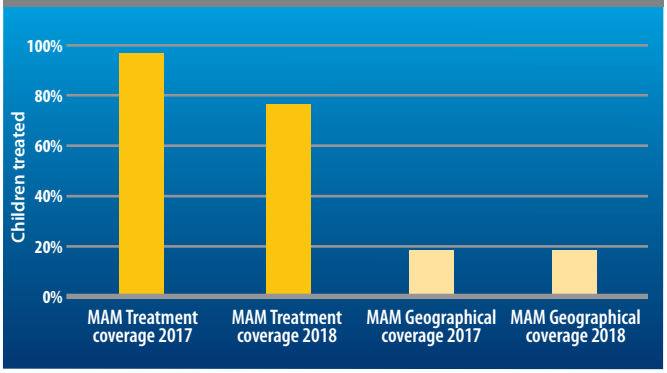
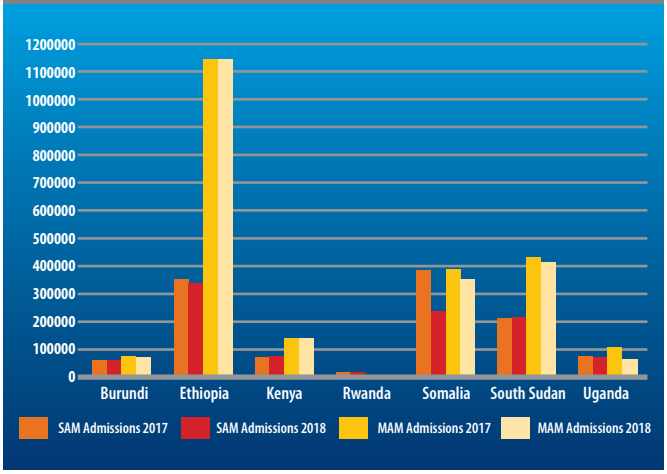


Figure 4 Total number of SAM and MAM Admissions East Africa selected countries 2017-2018



Source: UNICEF and WFP ESARO

3.1 Geographical and treatment coverage

SAM treatment coverage[4] data was provided by UNICEF for all seven selected countries, while data on geographical coverage[5] was provided for Ethiopia, Rwanda, and Uganda.

Figure 1 suggests that Sphere standards (>50% coverage in rural areas/70% coverage in urban areas) have been met for SAM treatment coverage 2017-2018 in Ethiopia, Rwanda, Somalia, Kenya and Burundi (although treatment coverage dropped quite sharply between 2017 and 2018). Treatment coverage is low in Uganda and dropped further between 2017 and 2018. For Somalia, 2017 was an emergency year and numbers treated exceeded the estimated burden.

Figure 2 suggests that geographical coverage in Ethiopia and Rwanda appears to be very good (100%); i.e. all health facilities provide SAM treatment, while in Uganda geographical coverage of SAM treatment is apparently very limited, with focus mainly in emergency areas, including Karamoja and those districts hosting refugees. However, high geographical coverage does not necessarily mean services are available all year round or are of adequate quality.

Data on geographical and treatment coverage of MAM services at regional or country level was not available to the review, with the exception of Ethiopia (Figure 3). The data shows decreasing treatment coverage 2017-2018 and stable but low geographical coverage. Due to differences in coverage definitions (see above), SAM and MAM data are not directly comparable.

3.2 SAM and MAM admissions 2017-2018

MAM and SAM admissions data is presented by country and sub-national level where possible in order to gauge the extent to which SAM and MAM services co-exist at sub-national level. Where sub-national admissions data has not been provided (for example, in the case of MAM admissions in Somalia for 2017) national-level admissions figures are presented in Figure 4 and in the country sections. Sub-national MAM and SAM admissions data for both 2017 and 2018 was provided for Burundi, Ethiopia and South Sudan. SAM data was provided by UNICEF ESARO/country offices; MAM data was provided by WFP Regional Office/country offices. Data for South Sudan was provided by the National Nutrition Cluster.

Data was provided to ENN as follows:

- Annual national-level SAM admissions data for 2017-2018 was provided by UNICEF ESARO for all selected countries using data collected through Nutridash[6].
- WFP provided data on MAM admissions for 2017-2018 for Burundi, Ethiopia and Uganda and for 2018 only in Somalia. Data was also provided for South Sudan but combined data was provided by the National Nutrition Cluster (see below) in user-friendly format and this data was used for this report.
- In Rwanda, WFP operates TSFPs in camps only and data for 2017-2018 was shared.
- South Sudan National Nutrition Cluster provided both MAM and SAM admissions data for 2017-2018.
- Government of Kenya provided data on SAM and MAM admissions 2017-2018.

[4] Defined as total SAM admissions reported/SAM burden reported
[5] Defined as the number of health facilities providing treatment for SAM/total number of health facilities
[6] www.unicefnutridash.org

From the data available, there does not appear to be significant difference between the numbers of admissions to TSFPs and SAM treatment during the period 2017-2018 in the selected countries at both national and sub-national levels. Figure 4 summarises total annual SAM and MAM admissions in the countries selected for years 2017-2018[7]. However, information around alignment of SAM and MAM services and referrals between them is not available at regional or country level, apart from Kenya. UNICEF reported that South Sudan also has this type of data, but it was not available to the review. More detailed inquiry at sub-national level is required to examine service alignment.

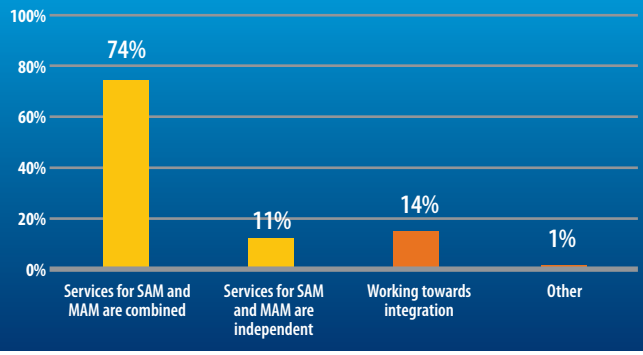
3.3 Insights into regional practice in the admission and referral of children with SAM and MAM

A comprehensive set of data at regional level, which presents comparative geographical and treatment coverage for both SAM and MAM services and the coherence between the two services in terms of successful referral and continuum of care for acute malnutrition, was not available. However, an online survey administered through UNICEF and WFP regional offices allowed some insights into the provision of a continuum of care from a qualitative perspective.

A total of 116 staff in the region responded to the online survey; from Burundi (n=14), Ethiopia (n=14), Kenya (n=20), Rwanda (n=6), Somalia (n=31), South Sudan (n=27) and Uganda (n=4) and across government (n=6), non-govern- mental organisations (n=79) and United Nations (n=31).

Results should be interpreted with caution as they represent personal opinions, the country contexts are very different, and representation across countries is not comparable. This section provides an overview of responses, with some reflections on differences between countries and contexts. A summary of main findings from the online survey relating to referrals between MAM and SAM services by country is presented in the country-specific section (3.4). Detailed results of the online survey can be requested separately from ENN.

Figure 5 Main approach to treatment of acute malnutrition, n=116



Three quarters (74%) of regional survey respondents reported that services for SAM and MAM in the region are provided in combination, within a community-based management of acute malnutrition (CMAM) or integrated management of acute malnutrition (IMAM) programme (see Figure 5). The remainder reported programmes working towards integration (14%) or separate services for MAM and SAM treatment (11%). In Burundi, 57% of respondents reported combined MAM/SAM services. Half (50%) of respondents in Ethiopia reported combined services, while 43% reported working towards integration. Most (95%) of respondents in Kenya, 65% of respondents in Somalia and 89% of respondents in South Sudan reported combined SAM and MAM services. Respondents in Rwanda and Uganda reported that, where possible, services were combined or were working towards integration.

[4] MAM admissions data for Somalia 2017 was not provided

Figure 6 Treatment of acute malnutrition (SAM and/or MAM), n=116

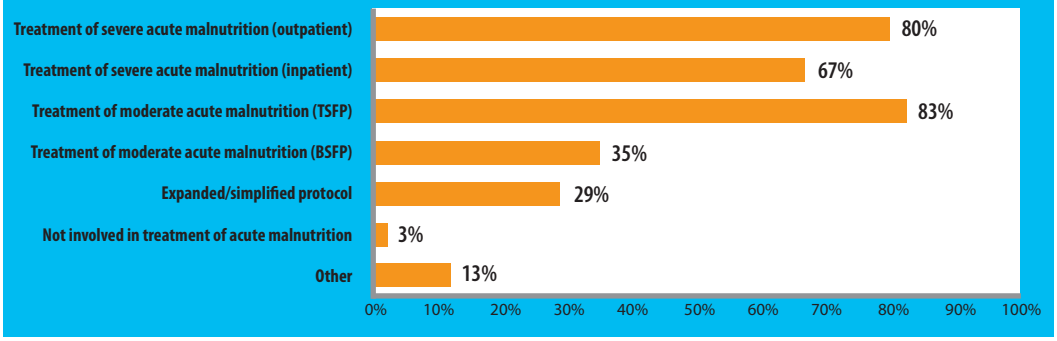


Figure 7 Provision of services relevant to acute malnutrition, n=116

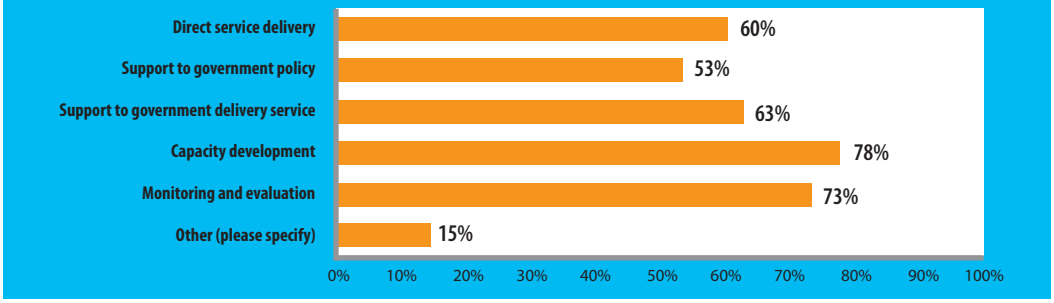
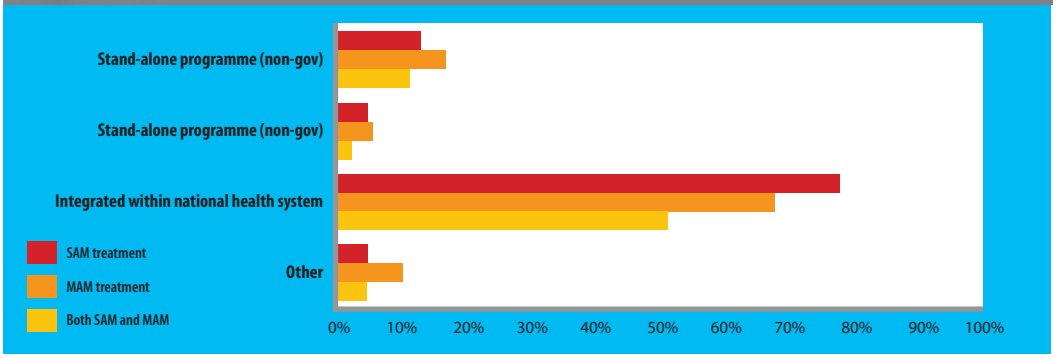


Figure 8 Integration of SAM and MAM into health system, n=86 (SAM), n=90 (MAM)



Across the region, the majority of agencies (including government) reported that they support outpatient services for SAM (80%), while 67% reported also supporting inpatient services for SAM. The majority (83%) of agencies reported that they provide TSFPs, while 35% reported providing blanket supplementary feeding programmes (BSFPs) (see Figure 6). Survey responses suggest that, in some cases, expanded/adapted BSFPs can also provide MAM treatment.

Over 70% of respondents reported that support to SAM and MAM in the region is through capacity development and quality assurance, followed closely by support to government service delivery (supplies) and direct service delivery (see Figure 7). Integrated treatment within health systems was reported by 78% of respondents (principally in Burundi, Ethiopia, Kenya, Rwanda and Uganda) for SAM and 68% of respondents for MAM (see Figure 8).

3.3.1 Treatment of SAM

All countries reported having a national protocol for SAM management. The majority (54%) of respondents reported that they do not have an agency-specific protocol, and most respondents indicated that they follow the national protocol.

Three admission criteria for SAM (for children aged 6-59 months) are widely used in the region: 1) MUAC <115mm (98%); 2) WHZ<-3 (92%), and 3) bilateral pitting oedema (95%) (see Figure 9). In the majority of cases both WHZ and MUAC are used as independent admission criteria. In Ethiopia admission criteria are due to be aligned with the 2013 WHO recommended guidelines for SAM in 2019 principally changing admission criteria from <110mm to <115mm using MUAC.

SAM discharge criteria for children aged 6-59 months appear to vary widely across the region (see Figure 10). Most respondents reported that children are discharged when they have no oedema (86%). Sixty per cent of respondents reported discharging children from SAM treatment with MUAC ≥115mm, and 51% of respondents reported discharge with WHZ≥-3. Countries where a large proportion of OTPs refer children to TSFPs once they reach MAM criteria were Kenya, Somalia and South Sudan. One third of respondents reported discharging children from OTPs when fully recovered (WHZ≥-2 or MUAC ≥125mm). The extent to which admission and discharge criteria were aligned was not assessed.

Infants under six months old are admitted according to various criteria. Around half of respondents reported that they admit infants for SAM treatment when they present with WLZ <-3 or bilateral oedema (see Figure 11). Forty per cent reported the use of a variety of admission criteria for infants under six months old, including weight <3kg, weight < 4kg, failure to gain weight/lack of appetite/ difficulty in or not breastfeeding, WHZ <-2, and visible severe wasting. One quarter (25%) of respondents reported that infants under six months old are not admitted for SAM treatment at all. Nine per cent of respondents in Ethiopia, 25% in Kenya, 36% in Somalia, 20% in South Sudan and most respondents in Burundi reported that infants under six months old were not admitted.

Figure 9 SAM admission criteria (6-59 months), n=82

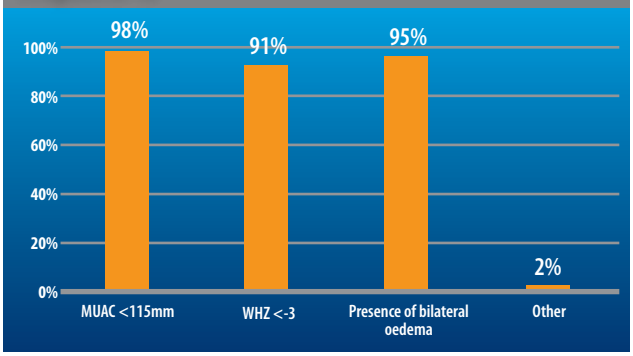


Figure 10 SAM discharge criteria (6-59 months), n=87

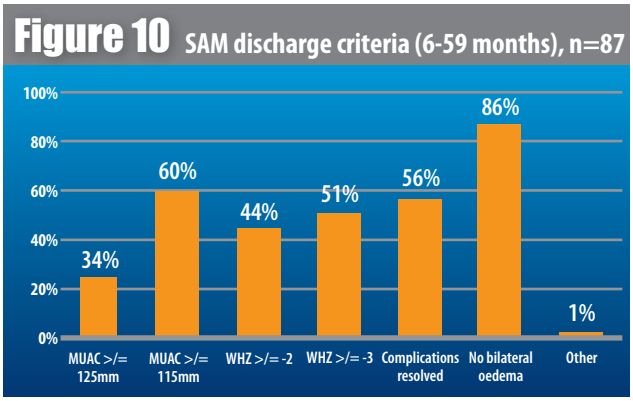
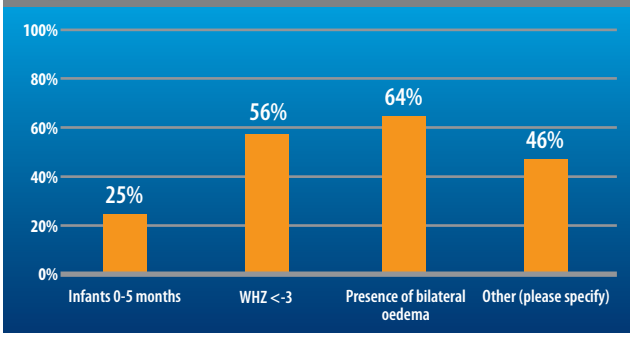


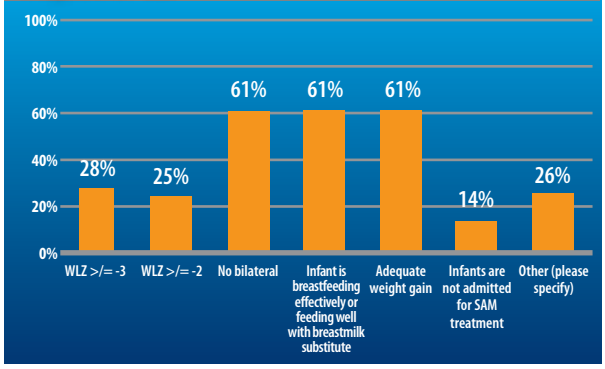
Figure 11 SAM admission criteria (infants under six months old), n=84



Over 60% of respondents reported that infants are discharged from SAM treatment when they meet three criteria: 1) resolution of complications (including oedema); 2) feeding

effectively (with breastmilk or breastmilk substitute); 3) show adequate weight gain (see Figure 12). These appear to be used in combination rather than as stand-alone criteria. Anthropometric criteria (WHZ >= -3 or WHZ>=-2) are also used but to a lesser extent (28% and 25%, respectively).

Figure 12 SAM discharge criteria (0-5 months), n=85



3.3.2 Treatment of moderate acute malnutrition

Most (97%) respondents reported the existence of a national protocol for MAM treatment, while one third reported also having an agency-specific protocol, although most follow national guidelines for MAM treatment.

Survey respondents reported that children are admitted for MAM treatment using one or two admission criteria: 1) MUAC ≥115mm and< 125mm (92%); or 2) WHZ ≥ -3 and <-2 (78%) (see Figure 13). Some respondents reported that clinical signs are also used in MAM admissions, alongside anthropometric criteria.

A similar proportion reported that children are discharged from MAM treatment on meeting either WHZ (≥-2 or MUAC (>125mm) criteria (Figure 14). Some regional variability exists, including use of other criteria such as weight gain and MUAC >120mm (which is due to change in 2019 in Ethiopia with the adoption of the 2013 WHO SAM guidelines).

Figure 13 MAM admission criteria, n=91

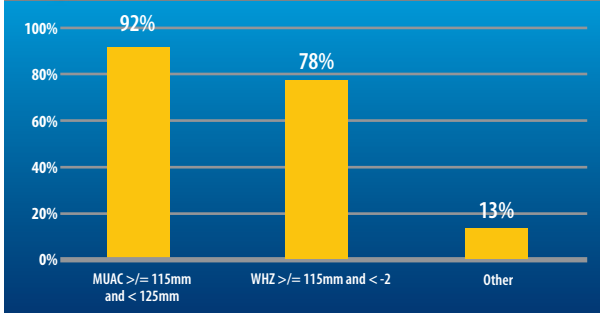
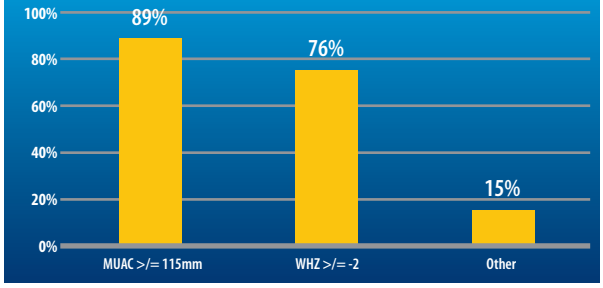


Figure 14 MAM discharge criteria, n=91

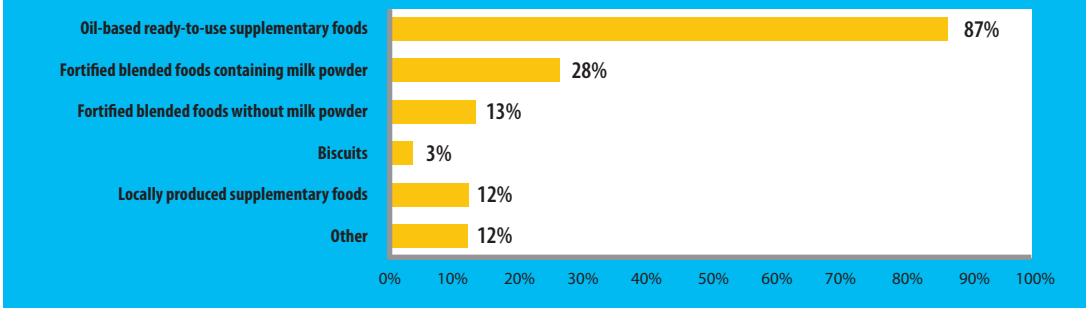


Use of supplementary food products

Various supplementary food products are used in the region for the treatment of MAM. According to the survey, oil-based ready-to-use supplementary foods (RUSFs) are favoured for treatment of MAM (87%), followed by fortified blended foods (FBFs) containing milk powder (26%) (see Figure 15). Super Cereal Plus (CSB++), micronutrient powders (although not a treatment for MAM) and regular food products (vegetable oil, cow's milk) were also indicated in some countries as a treatment product for MAM.

In addition to the provision of supplementary food products, more than half of survey respondents reported that children recovering or recovered from MAM are referred to other services (see Figure 25).

Figure 15 Main supplementary product for MAM treatment (6-59 months), n=91



3.3.3 Referrals between SAM treatment facilities and MAM treatment facilities

OTP/SC Referrals

Almost three quarters (73%) of respondents in the region reported that outpatient treatment services can successfully refer complicated cases of SAM to an inpatient facility. However, several barriers to this type of referral were noted, including distance between the two facilities and the existence of fewer inpatient facilities, which are located predominantly in high burden and/or highly populated areas. The successful flow of SAM cases from inpatient to outpatient care was reported as much higher (92%) than outpatient to inpatient care and fewer barriers were experienced.

Monitoring of the successful referral (or not) of children with SAM was reported by 80% of respondents in the region (see Figure 18). In practice, while referrals are captured in the originating facility, follow-up on these referrals in the receiving

Figure 16 Outpatient to inpatient referrals for complicated SAM, n=75

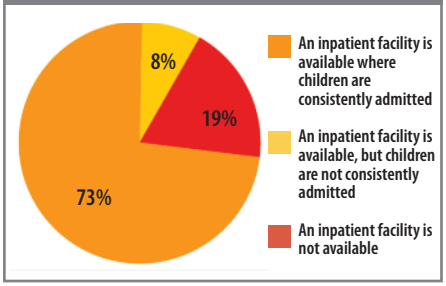


Figure 17 Inpatient to outpatient referrals for stabilised SAM, n=85

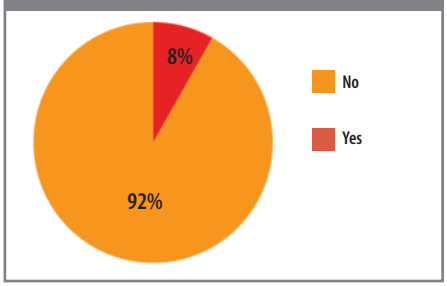
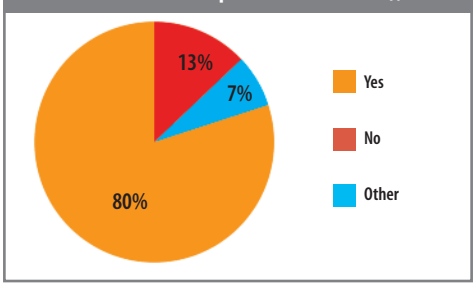


Figure 18 Monitoring of success of SAM referrals (inpatient and outpatient combined), n=86



facility is a weak point and several respondents noted this as a known gap in the system; systems are not set up to successfully capture data on individual cases (children) and follow them on their journey from treatment to discharge.

Discharge/referral criteria for children with SAM to TSFPs

The presence of a TSFP was found to make a difference to SAM admission criteria in some cases, particularly in reported practice in Somalia and South Sudan. One third (34%) of respondents reported that discharge criteria for SAM treatment is affected where TSFPs are available (Figure 19). In these cases, children recovering from SAM will be transferred to TSFP as a MAM case, using lower discharge criteria (e.g. MUAC >/=115mm and/or WHZ >/=-3 instead of MUAC >/=125mm and/or WHZ >/=-2).

In terms of protection of children treated for SAM following recovery, 53% of respondents reported that children are discharged to a TSFP once cured/recovered according to discharge criteria (Figure 20). In Burundi, Ethiopia, Rwanda and Uganda, most respondents reported that children with SAM are discharged once cured of acute malnutrition. One third (33%) of respondents in Kenya, 40% of respondents in Somalia and 50% of respondents in South Sudan reported discharging SAM children to TSFPs once they reach MAM criteria.

Referral of children identified as MAM in SAM treatment centres

Almost all (97%) respondents reported that children identified with MAM at SAM treatment facilities are referred to TSFPs. Only 1% reported referring MAM children to BSFPs in the region.

Figure 19 Presence of TSFP affecting SAM discharge criteria, n=86

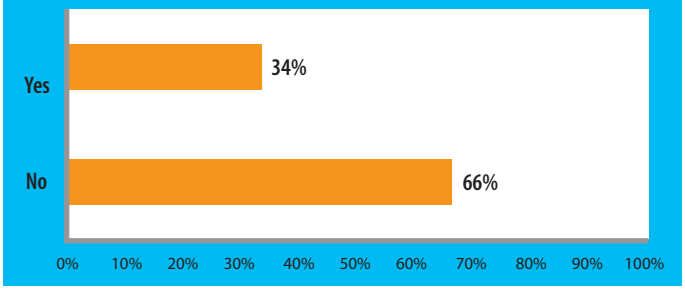


Figure 20 Point of SAM discharge to MAM TSFP, n=87

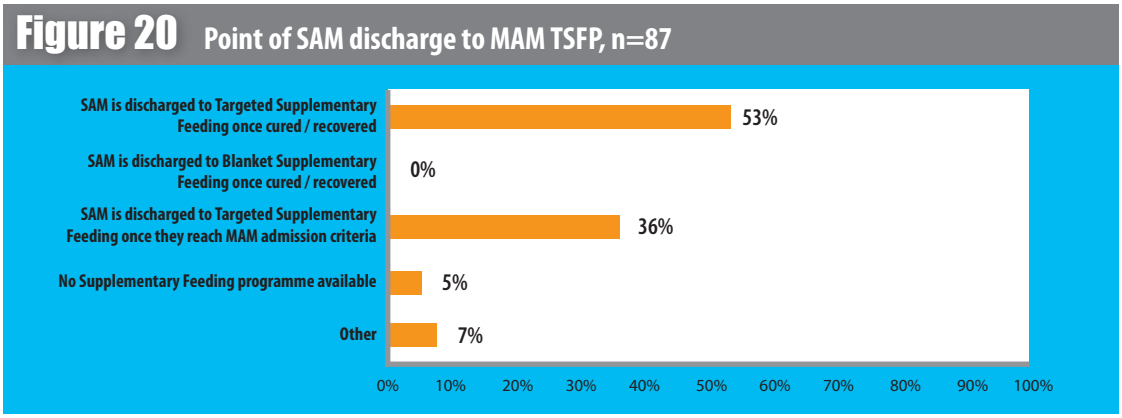


Figure 21 Referral of MAM child identified at SAM treatment centre, n=72

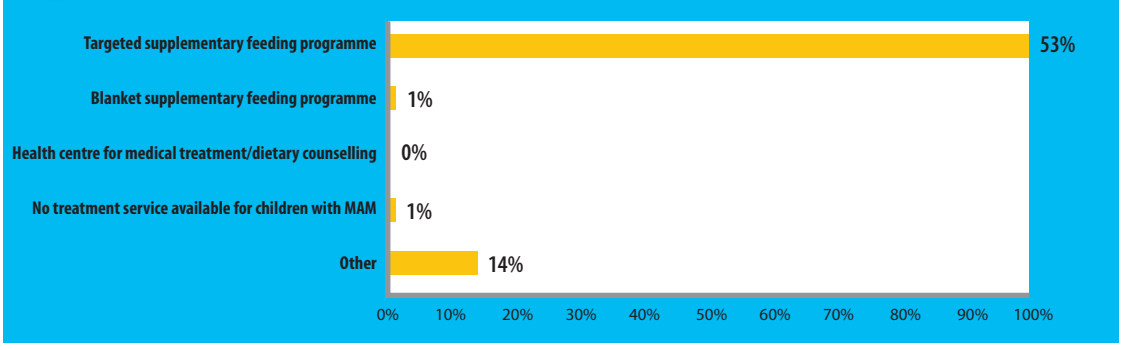
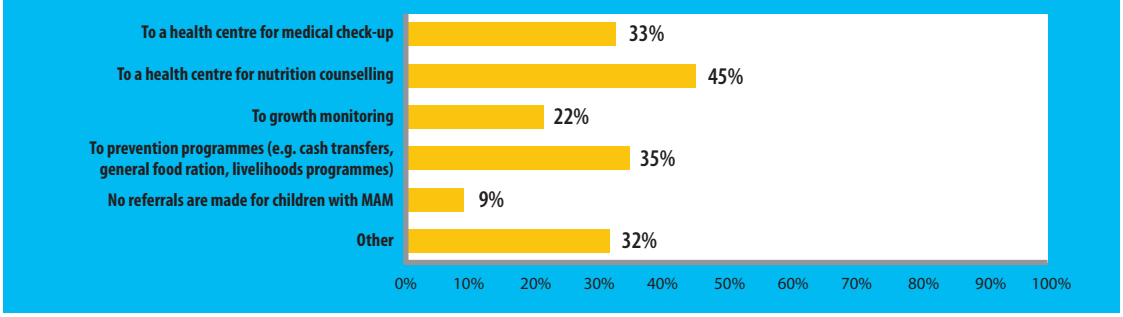


Figure 22 Referral of MAM child where no MAM services available, n=88



Only a small number of respondents reported having no TSFPs to which they can refer and the majority of respondents reported that they would refer a child arriving with MAM at a SAM treatment centre to a TSFP when available (Figure 21), although in Burundi, Ethiopia, Rwanda and Uganda possibility of referral is lower. Where no MAM treatment services are available, respondents reported that children are referred to one of several facilities or programmes: health centres for either medical check-ups (33%) or nutrition counselling (46%), prevention programmes (35%), or growth monitoring (21%). One third of respondents reported following several context specific options, such as use of expanded criteria, referral to a more distant MAM treatment centre, or use of community health workers for prevention activities (see Figure 22).

Although the survey results above imply that TSFPs are available for referral, less than half (46%) of respondents reported that SAM treatment centres are able to successfully refer MAM children for treatment 90-100% of the time (i.e. the referred child is recorded as admitted at the destination centre). Nineteen per cent reported being able to successfully refer children 70-90% of the time; 12% could refer 50-70% of the time; while 23% reported that they were able to refer to MAM treatment less than 50% of the time (Figure 23). The 'other' category included the treatment of MAM with ready-to-use therapeutic food (RUTF) in OTPs where TSFPs are absent in Somalia.

Referral of children identified as SAM in MAM treatment centres A similar pattern can also be observed with relation to referral of children from MAM treatment to SAM treatment facilities (see Figure 24).

Additional referrals for children with MAM

In addition to the provision of supplementary food products (see Figure 15), more than half of survey respondents reported that children recovering or recovered from MAM are referred to nutrition counselling (65%), growth monitoring (53%), and prevention programmes (51%), depending on availability (see Figure 25).

Figure 23 Proportion of SAM treatment centres able to successfully refer children to MAM treatment centres, n=83

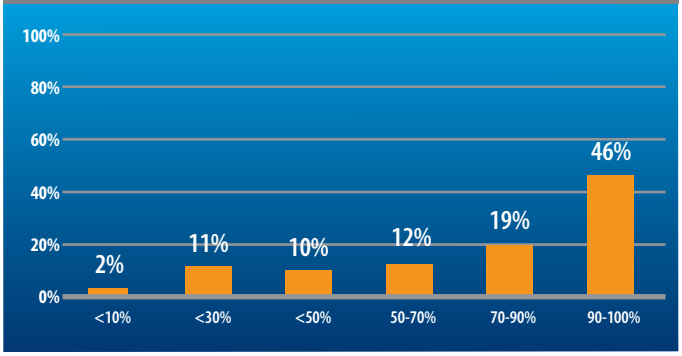


Figure 24 Proportion of MAM treatment facilities able to successfully refer children to SAM treatment centres, n=88

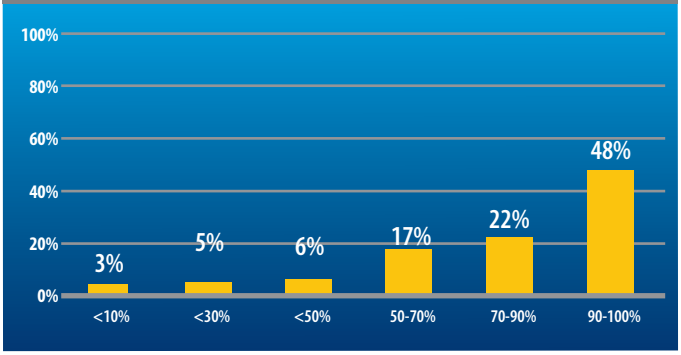


Figure 25 Referral of MAM child where no MAM services available, n=88

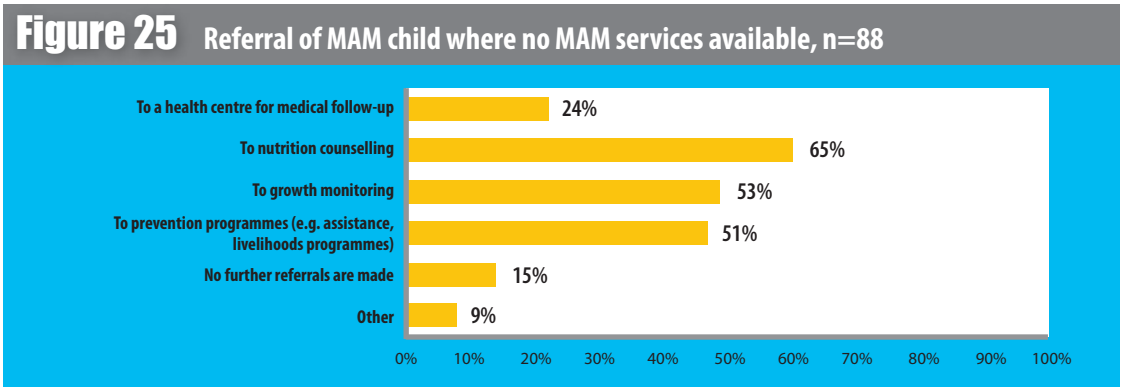
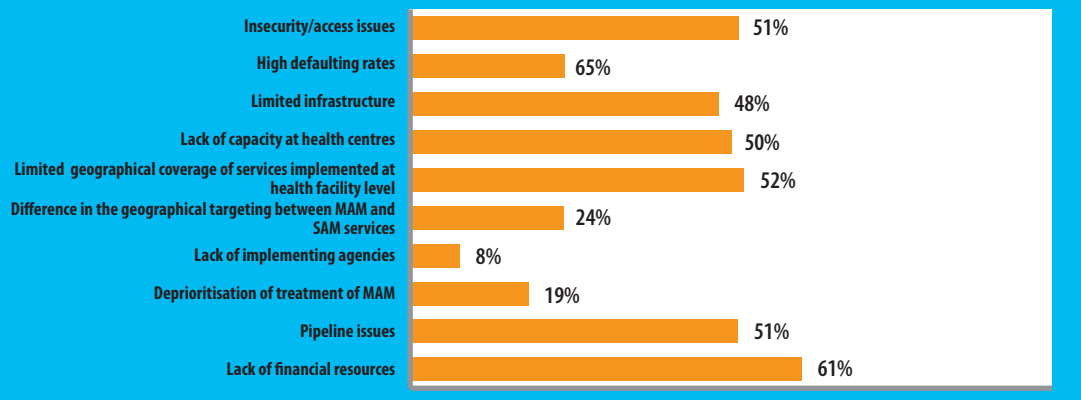


Figure 26 Main barriers to continuum of care for children with acute malnutrition, n=100



3.3.4 Barriers to continuum of care for acute malnutrition

The six most commonly mentioned barriers (>/=50% of respondents) to continuum of care for children with acute malnutrition in East Africa were reported, in order of priority, as: lack of government/ agency financial resources, insecurity/issues with access, limited geographic coverage of services implemented at health facility level, product pipeline issues, lack of capacity at health centres, and limited infrastructure (see Figure 26). Cross-cutting these factors was a reported lack of coordination among agencies delivering SAM and MAM services, which leads to children being lost to follow-up. High caseloads paired with low human resources are also reported as barriers to the extent to which treatment programmes for children with MAM and SAM are aligned and successfully making referrals between the two services.

Respondents in Burundi, Rwanda and Uganda reported limited geographical coverage, lack of capacity and lack of financial resources as the main barriers, while Ethiopia respondents reported limited infrastructure, lack of capacity at health centres and pipeline issues. Kenya respondents reported pipeline issues, access/security and health centre capacity; Somalia respondents reported access/security issues, financial resources and limited geographical coverage; and South Sudan respondents reported access/insecurity, health centre capacity, pipeline issues and financial resources.

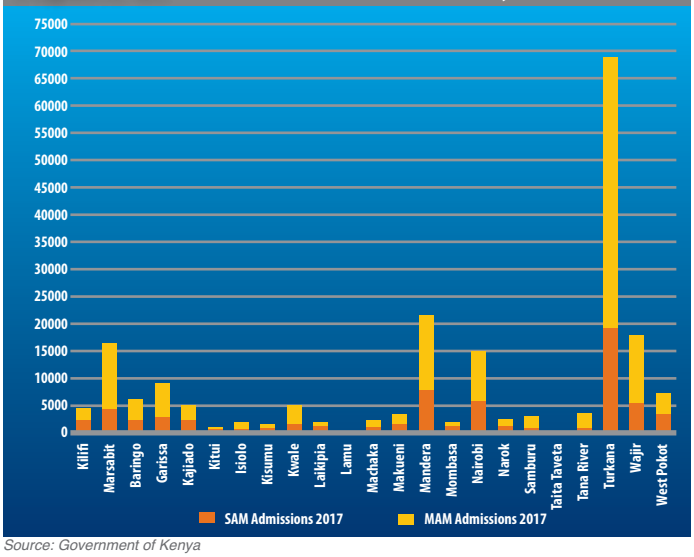
3.4 Results by country: Sub-national MAM and SAM admissions and online survey results

3.4.1 KENYA

The data displayed in Figures 27 and 28 show that MAM and SAM services are available in the arid and semi-arid lands (ASAL) and coastal region of Kenya. There is also consistency in MAM and SAM admission figures 2017-2018, with the exception of Turkana

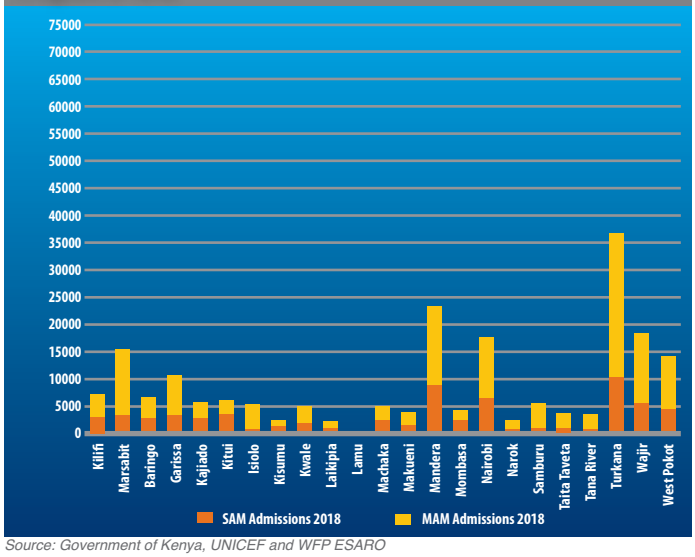
Kenya was the only country participating in this review (in both East and West/Central Africa regions) able to provide data on referrals between TSFPs and OTPs/SCs at this level of reporting (i.e. sub-national), for all districts, highlighting a clear link between the two services. However, it is not clear from the data provided at this level whether referral data is collected by the programme making the referral and/or the receiving centre, and the success of each referral cannot be inferred from the findings. However, what is available suggests a good alignment and referral system between SAM and MAM services, with systematic monitoring and data collection, helping to promote a continuum of care for children at all stages of acute malnutrition. Figure 29 presents data on referrals between TSFPs and OTPs/SCs for 2018 for all districts. Referrals to and from OTPs and SCs were not distinguished.

Figure 27 SAM and MAM Admissions Kenya 2017



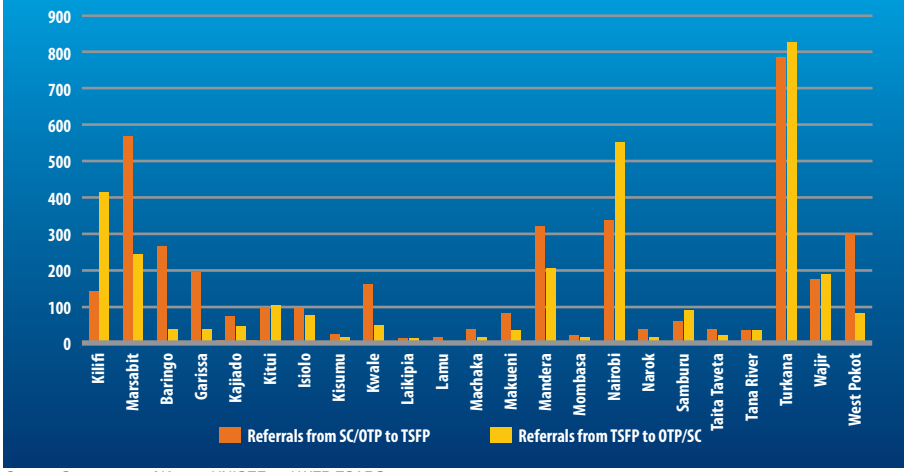
Source: Government of Kenya

Figure 28 SAM and MAM Admissions Kenya 2018



Source: Government of Kenya, UNICEF and WFP ESARO

Figure 29 SAM and MAM Admissions Kenya 2017



Source: Government of Kenya, UNICEF and WFP ESARO

Qualitative feedback from online survey

Respondents to the online survey in Kenya (n=20) reported that inpatient facilities receive children with complicated SAM from various OTP sites. Sites are not always directly linked to each other and the distance between them can be large. These are barriers to successful referrals between the two; mainly in the flow from outpatient to inpatient facility, since there are fewer inpatient facilities and they are located further away from home for most children and caregivers. Most (93%) of respondents reported being able to successfully refer children from inpatient to outpatient treatment for SAM.

Respondents reported that children are discharged from SAM treatment to TSFPs either once cured/recovered (67%), or once they reach MAM admission criteria (33%) (note that some may interpret reaching the MAM phase of recovery as 'cured' and report as such). The majority of respondents indicated that MAM services are available for most children. For those in pockets where MAM treatment is not available, children are referred to a nearby facility for treatment or are retained in SAM treatment until fully cured. Some (47%) are referred to nutrition counselling or for medical check-ups at health centres as well as for growth monitoring (40%). Children recovering or recovered from MAM are in most cases also referred to nutrition counselling (83%) and for growth monitoring (78%).

The majority (over 60%) of respondents estimated that 90-100% of SAM treatment facilities were able to make successful referrals (i.e. children referred are recorded as admitted at the destination centre) to MAM treatment centres and almost 90% of total respondents estimated at least 70% of SAM treatment centres were able to refer children for MAM treatment.

Over half (69%) of respondents reported that 90-100% of MAM treatment facilities could successfully refer to SAM treatment facilities and 88% reported that over 70% of MAM treatment facilities could successfully refer to SAM treatment facilities.

Pipeline issues, which affect adherence to treatment and utilisation of services, were indicated as the main barrier to the alignment and successful referrals between SAM and MAM services (63%). Insecurity/access issues, as well as lack of capacity at health centres, limited geographical coverage of services implemented at health facility level, and high defaulting rates are also constraining the continuum of care for children with acute malnutrition. One third of respondents highlighted that limited infrastructure and lack of financial resources contribute to the problem. Poor quality data and loss to follow-up due to ineffective referral mechanisms were also indicated as issues.

Survey respondents in Kenya noted how the integration of SAM and MAM services within the government healthcare system has guaranteed a continuum of care for acute malnutrition, in conjunction with a robust community health strategy in the country that ensures linkages between the health facility and the community. A lack of steady supply of nutrition products for the treatment of MAM was reported as a major challenge to care for moderately malnourished children.
Survey responses indicated that continuum of care for acute malnutrition could be further enhanced in Kenya through:

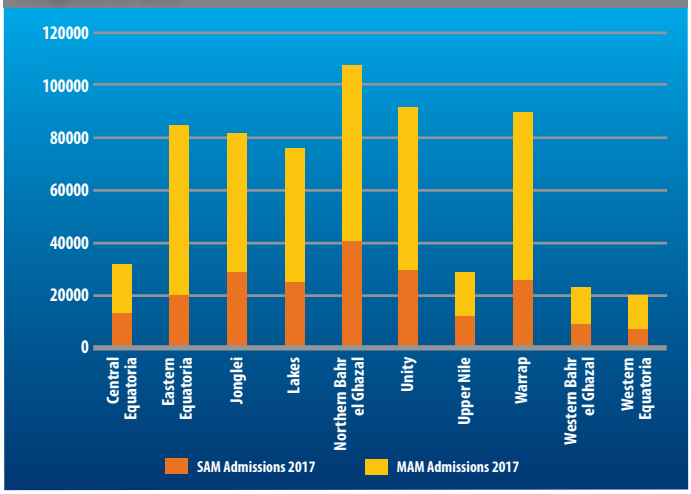
- Addressing TSFP pipeline issues and ensuring sufficient resources are allocated for both SAM and MAM, with funding priority given equally to each;
- Building capacity of healthcare providers to treat both SAM and MAM;
- Simplification of protocols to avoid too many transitions for a child with acute malnutrition;
- Use of a single commodity as a potentially more effective and cheaper means for health workers to manage treatment of acute malnutrition among their many other duties;
- Further support to community health services and their linkages with the community in order to reduce the number of defaulters and improve the referral system;
- Strengthening of referral mechanisms and conducting consistent data reviews and register audits to ensure children are being assessed and referred correctly;
- Development of approaches to enhance continuum of care for acute malnutrition for migratory populations.

3.4.2 SOUTH SUDAN

Combined data on SAM and MAM admissions for years 2017 and 2018 was provided from the National Nutrition Cluster in South Sudan.

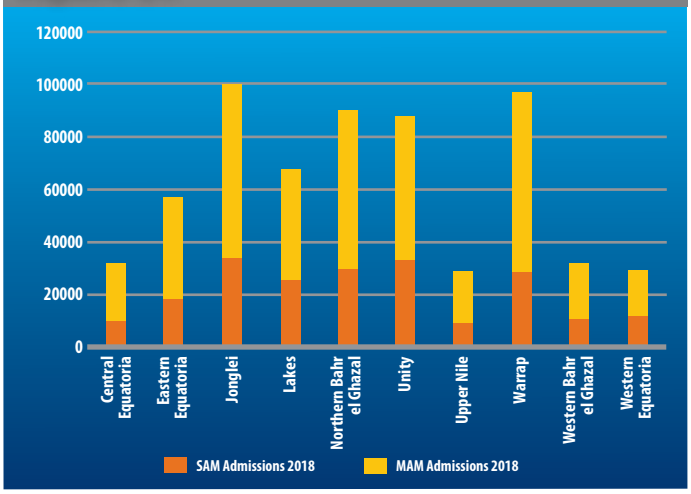
The data displayed in Figures 30 and 31 suggest very good coherence between MAM and SAM services at the sub-national level (SAM and MAM services are provided in all sub-regions) and similar trends in MAM and SAM admissions 2017-2018, in a country where rates of acute malnutrition are very high[8]. However, as with the data provided for most other countries in the region, the degree to which services to treat acute malnutrition are aligned and successfully making referrals between them cannot be concluded from data at this level and requires further inquiry at sub-national and implementing agency level. A field article describing the situation in South Sudan finds convergence between the two services and what was involved to realise this appears in Field Exchange issue 60[9].

Figure 30 SAM and MAM Admissions South Sudan 2017



Source: South Sudan Nutrition Cluster

Figure 31 SAM and MAM Admissions South Sudan 2018



Source: South Sudan Nutrition Cluster

Qualitative feedback from online survey

Survey results from South Sudan (n=27) suggest that inpatient facilities for complicated SAM are limited. While a majority (71%) indicated that inpatient facilities are available where children are consistently admitted, this depends greatly on geographic location as well as facility resources. Inpatient facilities are located in main referral facilities, which are not evenly distributed. Often a single inpatient facility serves several OTP sites per county; hence referrals from inpatient to outpatient for stabilised SAM cases were reported as much more successful. Capture of data on referrals was reported by the majority of respondents (89%).

Although the national protocol recommends discharging children cured from OTPs in the absence of a TSFP, in practice only one quarter of respondents reported this to be the case.

Fifty per cent of respondents reported that children are enrolled in TSFPs once either cured/recovered from SAM and 50% reported discharge once children have reached MAM admission criteria. Where no MAM services are available, children are referred to health centres for nutrition counselling (47%), for medical check-ups (37%), to prevention programmes (37%), or for growth monitoring (16%). A high proportion of respondents (70%) estimate that 90-100% of SAM treatment centres can successfully refer to MAM treatment centres and 90% estimate that 70% or more of SAM treatment services are able to make successful referrals for MAM treatment. The survey showed similar findings with relation to the referral of children from MAM treatment centres to SAM treatment centres.

Respondents reported that children with MAM are additionally referred to prevention programmes (74%), nutrition counselling (57%) and growth monitoring (39%), and to a lesser extent to health centres for medical follow-ups. No further referrals are made in almost one fifth of MAM cases.

The extent to which treatment programmes for children with MAM and for those with SAM are aligned and have successful referrals between the two services are limited by various key issues, including insecurity/access issues (82%), lack of financial resources (73%), product pipeline issues (68%), lack of capacity at health centres (64%), and limited infrastructure (55%).

Respondents to the online survey based in South Sudan noted the following in ensuring a continuum of care for acute malnutrition:

Cont'd next page

[8] Global Database on Child Growth and Malnutrition. Joint child malnutrition estimates – Levels and trends (2018 edition) UNICEF-WHO-The World Bank Group, May 2018. www.who.int/nutgrowthdb/estimates2017/en

[9] Dina Aburmishan et al. (2019). Scaling-up of care for children with acute malnutrition during emergency nutrition response in South Sudan between 2014 and 2018. *Field Exchange* issue 60, July 2019. p73. www.ennonline.net/fex/60/scalingupofcare

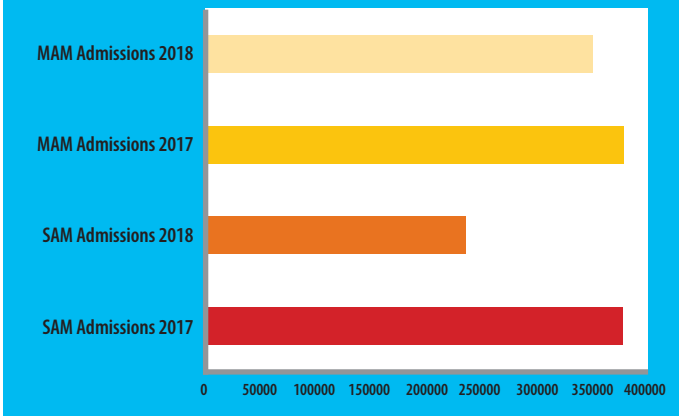
- The need for improvement of the supplies pipeline, including harmonisation of RUTF and RUSF supply (same source) and pre-positioning of supplies during the dry season;
- Joint caseload and targeting planning by government, UNICEF and WFP;
- Integrated mapping, support and funding of implementing agencies in specific geographical locations for both MAM and SAM services supported by UN agencies (e.g. UNICEF and WFP);
- The importance of integration of SAM and MAM treatment within one facility, where possible with one agency responsible for both services;
- Linkages with nutrition-sensitive interventions for families of acutely malnourished children in order to address underlying factors that are a major cause of relapse;
- Provision of an integrated health and nutrition service where medical, SAM and MAM services are routinely delivered along a continuum;
- Integration of early child development and psychosocial stimulation within SAM and MAM services;
- Motivation of front-line health workers/volunteers as actors in mobilising the community, referring children to nutrition centres and linking discharged children from one service to another.
- Building health-worker capacity in detection, treatment and referral of cases of MAM and SAM;
- Use of community volunteers and mother support groups for active case-finding;
- Tackling accessibility and transport constraints, which are a key factor in ensuring continuum of care; e.g. through establishment and regular deployment of mobile nutrition teams.

3.4.3 SOMALIA

Sub-national data for Somalia was provided by UNICEF on SAM admissions for 2017 and 2018, presented in Figure 32. National data for MAM admissions 2017 and 2018 was provided by WFP. Comparison of MAM and SAM admissions in 2018 is presented in Figure 32; Figure 33 displays SAM admissions by sub-region for 2017 and 2018 (according to the data provided by UNICEF).

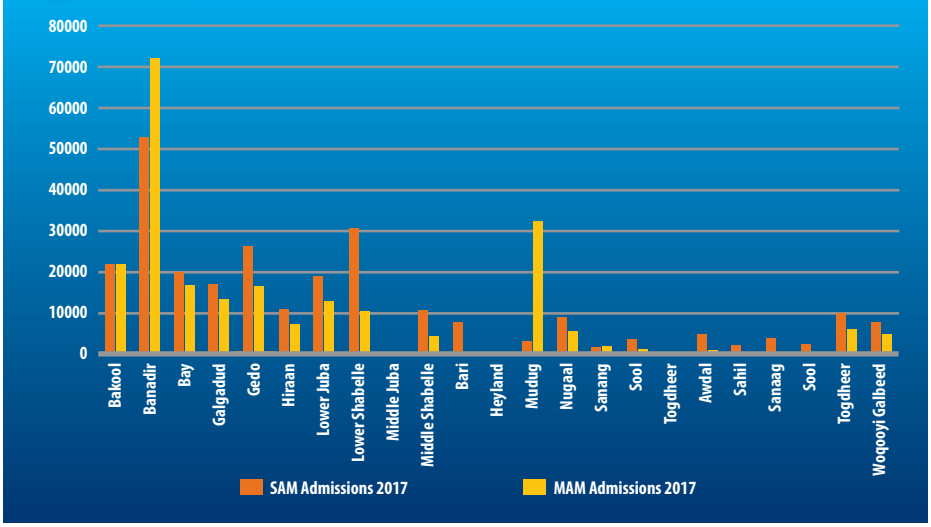
Although data on MAM admissions at sub-national level was not made available for this review, a mapping exercise was conducted by UNICEF of the location and overlap of SC, OTP and TSFP services in Somalia (see Figure 34).

Figure 32 MAM and SAM Admissions Somalia 2017 and 2018



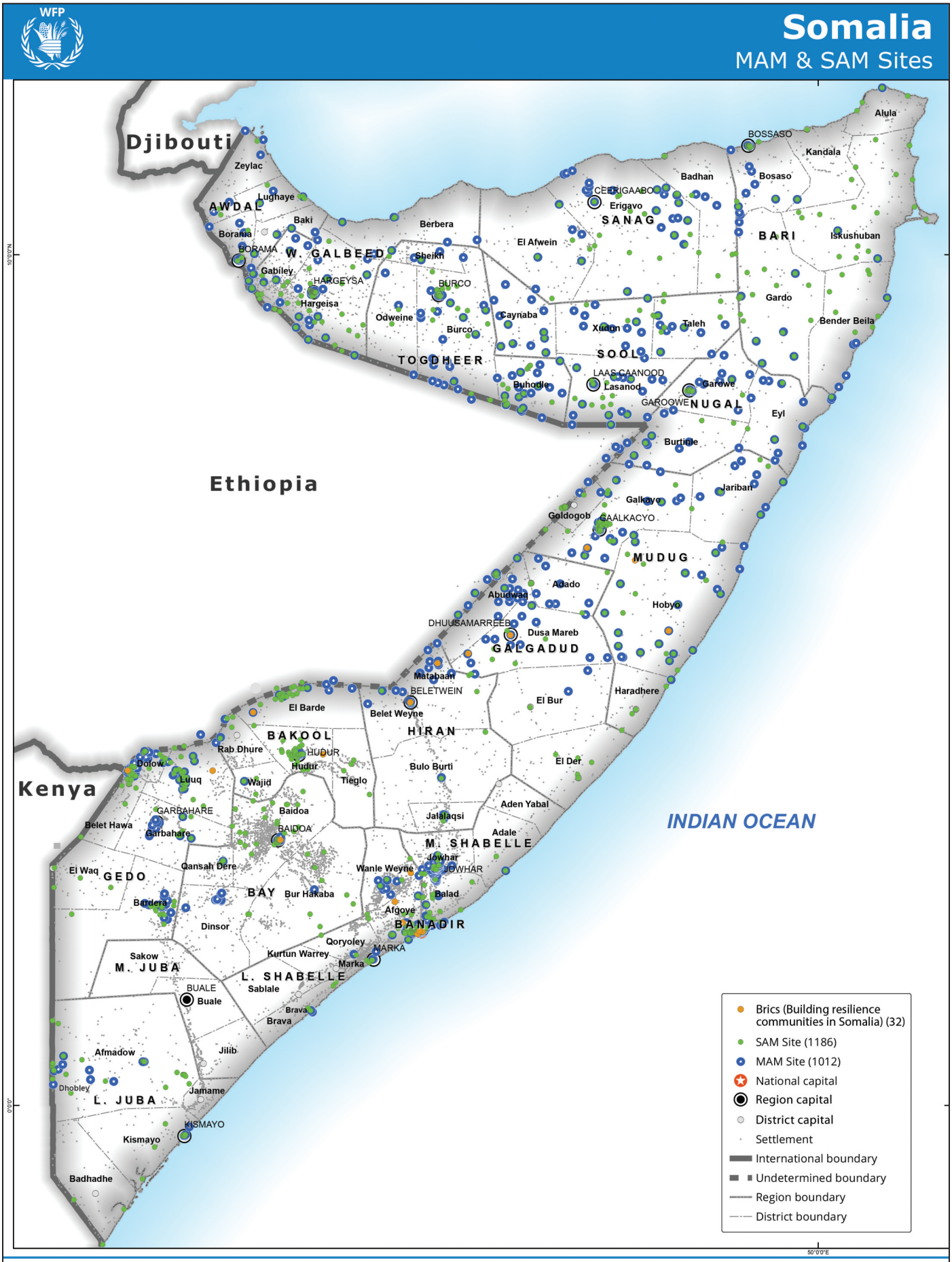
Source: UNICEF ESARO, WFP ESARO

Figure 33 SAM Admissions Somalia 2017-2018 by region



Source: UNICEF ESARO

Figure 34 WFP Mapping of MAM and SAM sites in Somalia, June 2019



Qualitative feedback from online survey

Seventy per cent of respondents to the online survey based in Somalia (n= 31) reported that an inpatient facility is available where children are consistently admitted. However, in almost one third of cases, inpatient facilities were reported as not available or children are not consistently being admitted. Lack of OTP sites with links to SCs and distance between the two types of service are among the barriers facing inpatient referrals. Conversely, almost 90% of respondents reported that children with stabilised SAM are referred to outpatient care. Almost 90% of respondents reported that referrals between SAM services are monitored, but some noted a lack of a system to follow up after a referral.

Children are discharged from SAM to either TSFPs for consolidation as per national IMAM guideline once cured/ recovered (48%), or once they reach MAM admission criteria (40%). Eight per cent of respondents reported that no TSFP is available for referral.

Most (83%) respondents reported that if children are identified as MAM at SAM treatment centres, they are primarily referred to TSFPs. In areas where no TSFPs are available, children are mainly referred to health centres for nutrition counselling (46%), medical check-ups (38%), or to prevention programmes (42%). Expanded admission criteria is applied in seven districts in Central South Regions of Somalia whereby MAM treatment is provided at OTP sites. UNICEF note that this is a key strategy to address TSFP gaps due to security access constraints for WFP. No referrals are made in 17% of cases.[10]

Estimates of the number of SAM treatment centres able to successfully refer children to MAM treatment centres and vice versa depend on the region and agency, with over half indicating that 70% or more of SAM treatment facilities could refer children to MAM treatment services. Only half of respondents reported that 70% or more of MAM treatment facilities were able to make successful referrals to SAM treatment services.

The most commonly reported barriers to continuum of care for acute malnutrition in Somalia included: fragmented coordination, lack of financial resources (76%), insecurity/access issues (68%), and limited geographical coverage of services at health facility level. Other barriers include pipeline issues (40%), difference in geographical targeting between MAM and SAM (32%), and lack of capacity at health centres (32%).

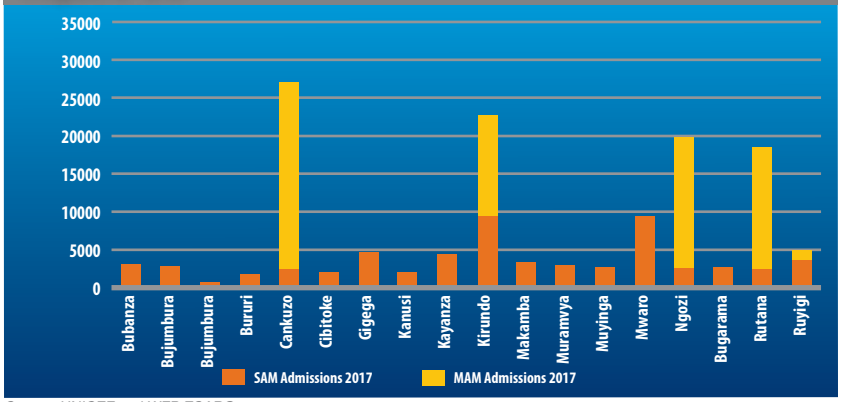
Respondents to the online survey based in Somalia suggested the following to ensure a continuum of care for acute malnutrition:

- Geographical mapping of organisations and assignment of SAM/MAM services to specific areas on this basis;
- Encouraging strict referral pathways for MAM and SAM cases through policy and field implementation; including, for example, the specification of maximum distance between OTP and SC, OTP and TSFP, etc;
- Integration of SAM (SC and OTP) and MAM treatment and health services within one facility, where possible implemented by a single agency;
- Ensure partnership and coordination between different organisations running MAM and SAM services;
- Implementation of referral system where referrals are followed up by phone call or even escorted to the referral centre; in case of no-shows, a home visit is undertaken and the child is then closely followed up;
- Advocate for donor funding for integrated projects which include SC, OTP, SFP, water, sanitation and hygiene (WASH), livelihoods, protection and health as a minimum requirement to ensure a comprehensive and holistic approach to treating acute malnutrition;
- Include preventive and promotional components of the basic nutrition package, which are less frequently funded than curative services, including promotion of optimal infant and young child feeding (IYCF), home-based food fortification and diversification linked to cash/vouchers;
- Strengthening community awareness of acute malnutrition and empowering community nutrition workers to conduct household screening and referral for acute malnutrition.

3.4.4 BURUNDI

SAM and MAM admission figures were provided by UNICEF and WFP respectively. Figures 35 and 36 suggest there are many areas where SAM services are being provided without MAM services. SAM treatment is available in all 18 sub-regions (provinces) and in 100% of 46 health districts. MAM treatment is available in only four sub-regions and MAM services are not always located where SAM admissions are higher as WFP criteria are based on global acute malnutrition (GAM) prevalence. In areas where MAM services are targeted, the caseload of MAM is reported as much higher than that of SAM in both 2017 and 2018. However, the data is not sufficiently detailed to demonstrate any alignment of MAM and SAM services and referrals of children between these. Admission figures are fairly stable between the two years, with the exception of a drop in SAM cases in Mwaro in 2018.

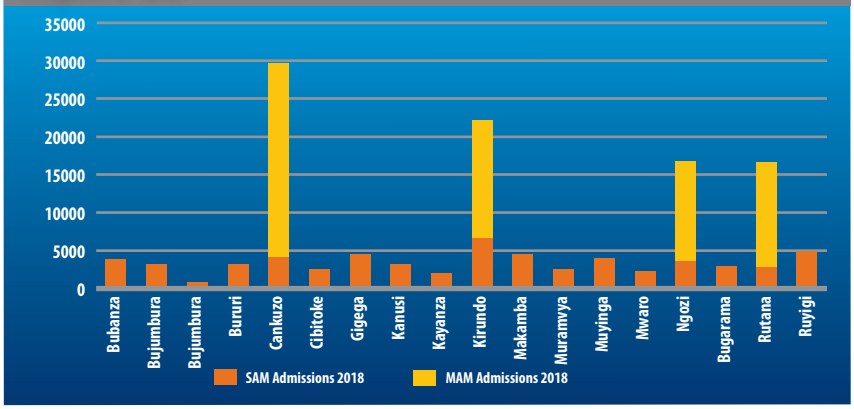
Figure 35 Number of SAM and MAM Admissions Burundi 2017



Source: UNICEF and WFP ESARO

[10] For more details, see John Ntambi, Pramila Ghimire, Ciara Hogan, Madina Ali Abdirahman, Dorothy Nabiwemba, Abdiwali Mohamed Mohamud, Abdirizak Osman Hussien, Kheyriya Mohamed Mohamud, Samson Desie, Grainne Moloney, Ezatullah Majeed (2019). Implementation of the Expanded Admission Criteria (EAC) for acute malnutrition in Somalia: interim lessons learned. *Field Exchange* issue 60, July 2019. p15. www.ennonline.net/fex/60/expandedadmissioncriteria

Figure 36 Number of SAM and MAM Admissions Burundi 2018



Source: UNICEF and WFP ESARO

Qualitative feedback from online survey

According to online survey respondents based in Burundi (n=14), monitoring of referrals between SC, OTP and TSFP is a challenge. Where TSFP services are available, children with SAM are discharged to TSFPs once they reach MAM admission criteria or once they are cured/recovered. Where no MAM services are available, new cases of MAM are referred for nutrition counselling and to community workers who provide prevention programmes.

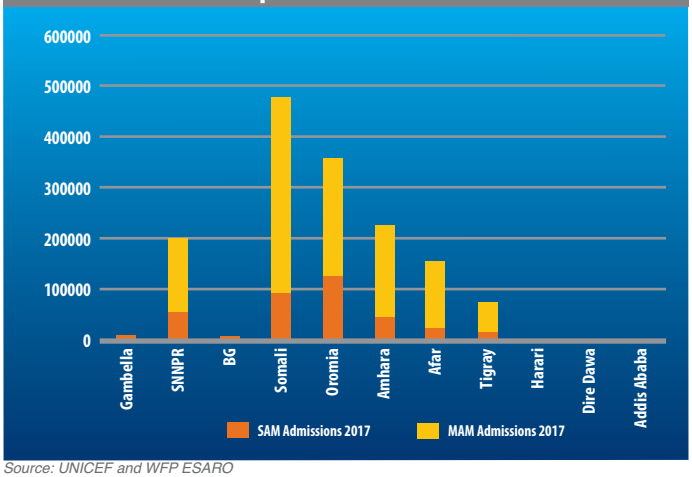
The primary barriers to the extent to which treatment programmes for children with MAM and SAM are aligned and successfully making referrals between the two services were reported as limited geographical coverage of TSFP services implemented at health facility level and lack of financial resources to increase coverage.

Respondents highlighted the need to work more closely with community health workers and build their capacity in the detection of acute malnutrition, as well as training those working in referral centres. The need for effective collaboration between the different structures involved in detection, management and referral of cases of acute malnutrition was underlined. Collaboration between the health facility and the community was felt to be particularly important as the latter is the point of departure for the patient and return after discharge.

3.4.5 ETHIOPIA

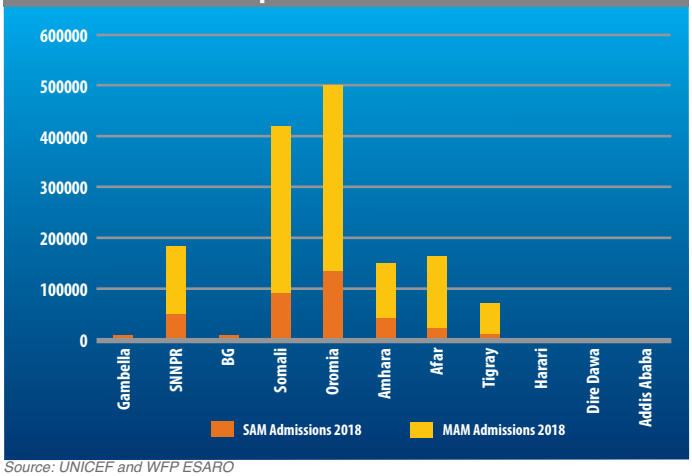
SAM and MAM admission figures were provided by UNICEF and WFP respectively. The data displayed in Figures 37 and 38 show that SAM treatment services are available in 10/11 regions in 2017 and in 8/11 regions in 2018, while MAM treatment services are only available in six out of 11 regions both years. There appears to be consistency in the numbers of MAM and SAM admissions 2017-2018. However, the degree to which children with acute malnutrition have access to and can be referred between the two services cannot be concluded from the data provided and needs further investigation at sub-national level. In the sub-regions with low admissions of SAM (Gambella, Benishangul-Gumuz (BG), Harari, Dire Dawa and Addis Ababa), MAM services are not available.

Figure 37 Number of SAM and MAM Admissions Ethiopia 2017



Source: UNICEF and WFP ESARO

Figure 38 Number of SAM and MAM Admissions Ethiopia 2018



Source: UNICEF and WFP ESARO

Qualitative feedback from online survey

Eight per cent of respondents to the online survey in Ethiopia (n=14) reported the availability of inpatient facilities for complicated SAM where children are successfully admitted, with exceptions in remote locations. All respondents reported that children referred from inpatient care to OTP were consistently admitted.

According to 91% of respondents, the presence of TSFPs for MAM treatment does not affect SAM discharge criteria. MAM treatment is not uniformly available, although more pilot areas are being added in 2019. Where MAM treatment does exist, it is mainly in the form of TSFPs and in the majority of cases children treated for SAM are discharged to TSFP once they are cured/recovered.

Where no MAM services are available, children with MAM are referred to health centres for nutrition counselling (55%), prevention programmes (45%), growth monitoring (36%) or medical check-ups (18%).

The reported proportion of SAM treatment centres able to successfully refer children to MAM treatment centres was low, with over 50% of respondents estimating that less than half of SAM treatment facilities can successfully refer to MAM services. An equally low number of successful referrals was indicated from MAM to SAM services.

Pipeline issues with RUSF and limited capacity at health centres and infrastructure were the most commonly reported barriers to MAM treatment. High caseload paired with lack of financial resources were also indicated as strong barriers to the successful referral between SAM and MAM services.

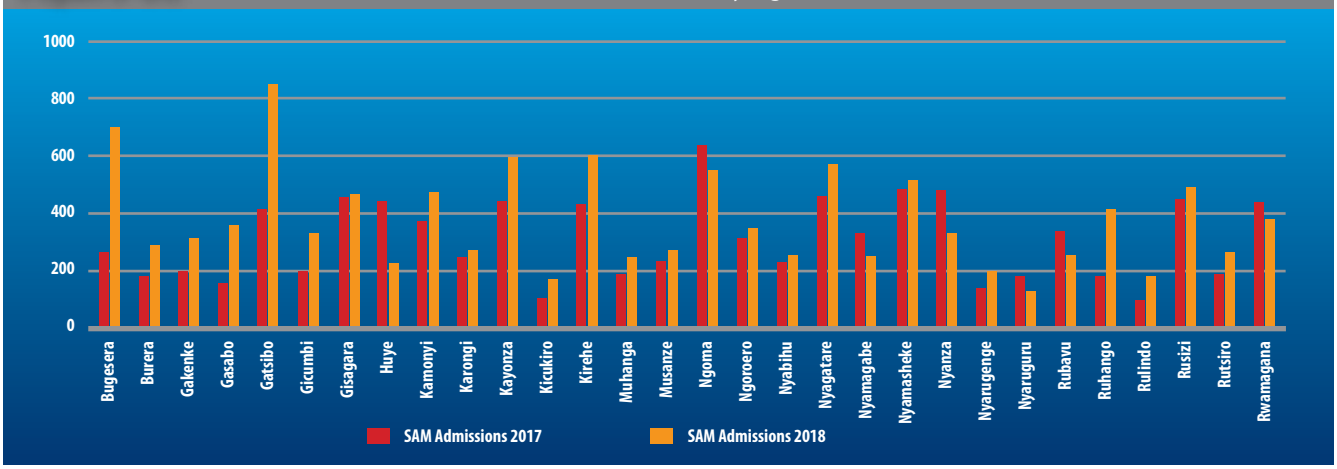
Respondents to the online survey in Ethiopia noted that continuum of care for acute malnutrition can be improved by addressing the 'deprioritisation' of MAM treatment, which is currently perceived at all levels (government, donors, UN and NGOs), while ensuring appropriate resources for logistics, capacity-building and service integration. Pipeline interruptions and delays on the side of WFP and dependence of implementing agencies on WFP for supplies were cited as key barriers to continuum of care. The direct purchase of TSFP products by partner agencies was offered as a solution to this issue.

One survey respondent noted that the new guidelines for the treatment of acute malnutrition have been endorsed by the government and promote use of international admissions and discharge protocols. This will result in an increased caseload and there may be a need to discuss how to prioritise those acutely malnourished children who are most at risk in order to target them with supplementary products and how to link others to safety net and preventive programmes. It was also noted that, as the country is moving closer to implementation of integrated management of acute malnutrition, monitoring, learning and documenting experiences during initial pilot stages will be very important.

3.4.6 RWANDA

SAM admission figures were provided by UNICEF. Sub-national data on SAM admissions 2017-2018 is presented in Figure 39. TSFPs are implemented by WFP in Rwanda in camps only. In 2017, 2,023 children aged 6-59 months with MAM were admitted. In 2018, 1,809 children aged 6-59 months with MAM were admitted. Fuller MAM data was not available to the review.

Figure 39 Number of SAM Admissions Rwanda 2017 and 2018 by region



Qualitative feedback from online survey

Respondents to the online survey based in Rwanda (n=6) reported that the outpatient facilities for SAM treatment with which they are involved have an inpatient facility to which they can refer complicated cases of SAM and all inpatient facilities for SAM treatment have outpatient facilities to which they can successfully refer non-complicated/stabilised cases of SAM. Good geographical access to health facilities and a strong network of community health workers was also noted. However, in practice, not all referrals can be considered successful as they are not consistently admitted due to geographic or financial barriers to children and their caregivers.

Referral from SAM to MAM services is more challenging. Where services for MAM treatment are available, children with SAM are discharged to a TSFP (it was not specified who operate these programmes) and it was noted that where MAM treatment is available it is done well. However, specialised supplementary products are not available everywhere or consistently and other products (such as cow's milk) are provided instead as the government has limited resources. As mentioned above, WFP reported only providing TSFPs in camp settings.

Lack of financial resources and lack of capacity at health centres are indicated as the main barriers to continuum of care between SAM and MAM in Rwanda. As chronic malnutrition is more prevalent than acute malnutrition in the country, and given a limited understanding of the seriousness of acute malnutrition, there was a sense that this may create barriers to the provision of services and ensuring a continuum of care, and there is a need for increasing government commitment and political will to ensure existing systems for the provision of a continuum of care can work.

3.4.7 UGANDA

SAM and MAM admission figures were provided by UNICEF and WFP respectively. SAM treatment is available in all regions and admissions appear consistent between 2017 and 2018 (see Figures 40-42). GAM prevalence is low at 3.6% . TSFP is provided only in the northern region of Uganda in Karamoja, and in other regions only for refugees (no breakdown by sub-region was provided). MAM admissions have dropped in both Karamoja and refugee populations between 2017 and 2018 (Figure 43).

[11] Global Database on Child Growth and Malnutrition. Joint child malnutrition estimates – Levels and trends (2018 edition) UNICEF-WHO-The World Bank Group, May 2018. www.who.int/nutgrowthdb/estimates2017/en

Figure 40 Number of SAM and MAM Admissions 2017 Uganda by region

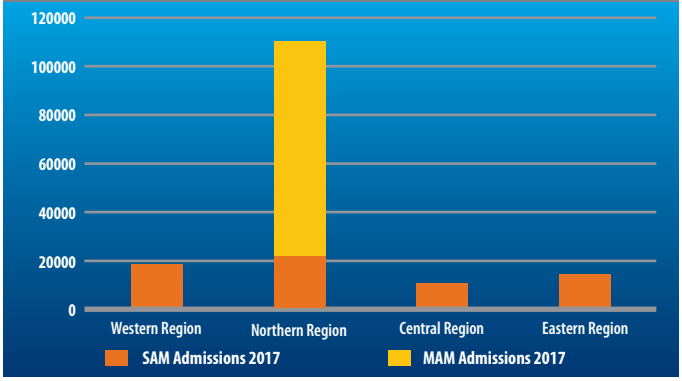
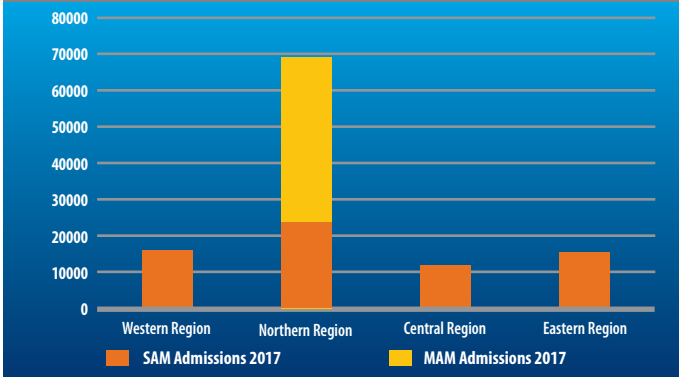
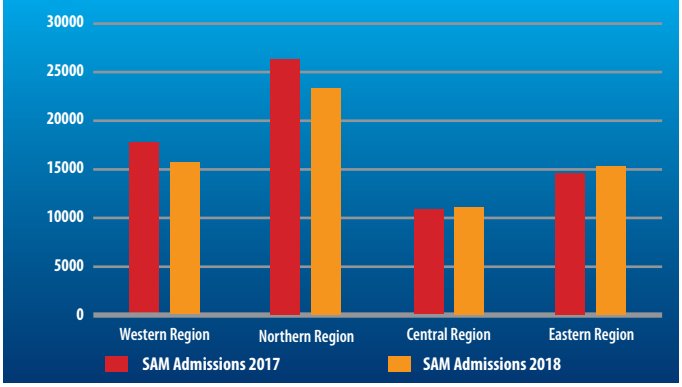


Figure 41 Number of SAM and MAM Admissions 2018 Uganda by region



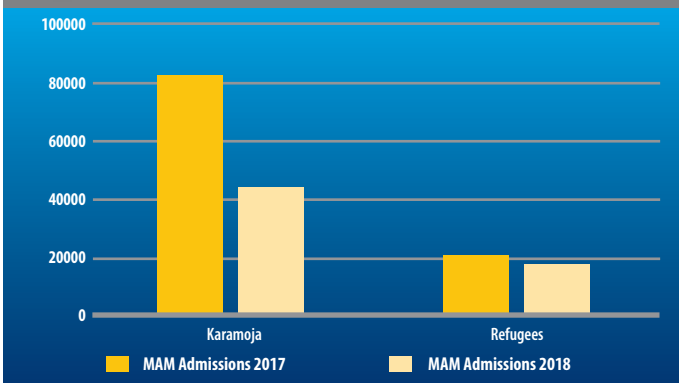
Source: UNICEF and WFP ESARO

Figure 42 SAM Admissions Uganda 2017-2018 by region



Source: UNICEF and WFP ESARO

Figure 43 Number of MAM Admissions Uganda 2017 and 2018



Qualitative feedback from online survey

Online survey respondents based in Uganda (n=4) highlighted the main barriers to continuum of care for acute malnutrition as pipeline issues, limited geographical coverage of services implemented at health facility level, lack of capacity at health centres, and limited infrastructure.

One respondent noted the importance of ensuring integrated SAM and MAM services in practice and not just in theory, with integrated monitoring. Although UNICEF supports the government to strengthen and functionalise the Health Management Information System and integration of monitoring of acute malnutrition should be included within this, some partners, especially those implementing MAM, use parallel reporting systems, with fragmentation of services and lack of follow-up for children discharged from SAM services when they reach MAM criteria.

Another respondent reported that Uganda is finalising a new protocol which will introduce new elements of care for acute malnutrition; e.g. discharge from SAM treatment will only occur when the child is cured/recovered (discharge criteria at WHZ≥1.5), with 90 days in SFP after discharge to prevent relapse and use of unisex growth chart to capture more girls with acute malnutrition.

3.5 UNHCR mapping of SAM and MAM treatment services in refugee operations 2017-2018

A mapping of CMAM services for refugees was provided by UNHCR EHAGLR, on programming coherence between services for SAM and services for MAM (both treatment and prevention), in terms of their location. Admission figures for each type of programme were not available due to limitations in the existing UNHCR health information system, but current changeover to a new Integrated Refugee Health Information System will improve data capture to track continuity of care.[12]

[12] For more details, see Naser Mohmand (2019). UNHCR experiences of enabling continuity of acute malnutrition care in the East, Horn of Africa and Great Lakes region. *Field Exchange* issue 60, July 2019. p101. www.ennonline.net/fex/60/unhcrexperiences

Country	Region hosting refugees	UNHCR mapping of available CMAM services for refugees EHAGLR				Follow-on BSFP for OTP cured?
		SC	OTP	TSFP	BSFP	
Burundi	Muyinga	Y	Y	Y	N	N/Y
Ethiopia	Dollo Ado/Somali Region of Ethiopia	Y	Y	Y	Y	Y
	Gambella	Y	Y	Y	Y	Y
	Afar	Y	Y	Y	Y	Y
	Assosa/Benishangul Gumaz	Y	Y	Y	Y	Y
	Jijiga/Somai Region of Ethiopia	Y	Y	Y	Y	Y
	Shire/Tigray	Y	Y	Y	Y	Y
Kenya	Kakuma/Turkana North-West	Y	Y	Y	Y	Y
	Dadaab/Garissa North-East	Y	Y	Y	Y	Y
South Sudan	Unity state	Y	Y	Y	Y	Y
	Upper Nile	Y	Y	Y	Y	Y
	Central Equatoria	Y	Y	Y	Y	Y
	Western Equatoria	Y	Y	Y	Y	Y
Uganda	South West	Y	Y	Y	Y	Y
	Mid-West	Y	Y	Y	Y	Y
	West Nile	Y	Y	Y	Y	Y
Rwanda	North and West	Y	Y	Y	Y	Y

Source: UNHCR EHAGL Region Nutrition and Food Security Unit

4.0 Discussion

Availability of data

There is an apparent absence of macro-level data on referrals between SAM and MAM services, both in global-level databases such as Nutridash (UNICEF) and at regional/country level. The reviewers could only collect national and sub-national SAM and MAM admissions data from WFP and UNICEF in the time available.

With the exception of South Sudan and Kenya, data on MAM and SAM admissions 2017-2018 was collected separately from WFP and UNICEF regional and country offices. In some cases, collation of SAM and MAM admissions data may now be available, as is the case for Somalia through the Nutrition Cluster since 2018. Data on inpatient SAM admissions was not available from WHO.

That this information may be available at national level is recognised and further investigation at that level is therefore required in order to be able to draw conclusions on continuum of care. Alongside this, clarity is required on what constitutes continuity of care across different contexts; in particularly where a TSFP is not going to be implemented. Additional time and resources would allow for further analysis of MAM/SAM referral systems operating at sub-national and treatment centre level and the nature/success of the linkages between these.

Format and data availability varied greatly within agencies. If data was standardised both within and between agencies and appraised and reported jointly it could be used for joint strategic planning purposes, evaluation of continuum of care, and coherence of services at both regional and country levels.

This highlights the potential role of government, the Cluster or another entity at national level to collect and combine data on MAM and SAM admissions and related indicators in a coordinated fashion. In five out of the seven countries included in the review, the programmes are delivered through Ministry of Health structures, with data reported through District Health Information Software (DHIS2). Enhancing the capacity of DHIS2 to collect and combine SAM and MAM data would provide the opportunity for informed discussions around areas for improvement between the two services, including ensuring good continuum of care.

No data was available from WHO regarding complicated cases; data on complicated SAM is included in the SAM data provided, but not distinguished. Medically complicated MAM cases are not reported in any datasets. This greatly limits interpretation of coverage and treatment continuum for complicated case management.

Comparable data on geographical and treatment coverage of SAM and MAM services was not made available to the review from regional or country level (although UNICEF provided treatment coverage for the countries reviewed and geographical coverage for three countries). How coverage is calculated is not standardised and is different for SAM and MAM which impedes comparison: SAM treatment coverage is calculated as the number of children treated as a proportion of the overall burden; while in Ethiopia, for example, MAM treatment coverage is calculated as the number of children treated as a proportion of programme targets. SAM geographical coverage is calculated as the number of health facilities treating SAM out of the total number of health facilities in a country. MAM geographical coverage data was not provided; the extent/method by which this is done at country level is not clear.

Availability and coverage of treatment services for SAM and MAM

Co-existence of both SAM and MAM services in an area does not necessarily represent effective referral between the services. This signifies a major gap in understanding with relation to the capacity to provide a continuum of care in treating acute malnutrition and increases the risk of MAM children becoming severely malnourished before they can access any treatment. It was noted that in some contexts, such as Somalia and South Sudan, burdens of MAM are very high.

According to the data provided, SAM and MAM treatment services are present in the ASAL and coastal regions of Kenya, in all states of South Sudan, and in six out of 11 regions of Ethiopia. As sub-national data on MAM treatment was not provided to the review for Somalia, the existence of both MAM and SAM treatment services at this level could not be evaluated, although WFP and UNICEF confirmed that in all 18 regions of Somalia both SAM and MAM treatment services are provided. The Somalia mapping exercise also presents a picture of this and is a helpful tool in defining where continuum of care through the provision of a range of services needs to be improved. MAM services operate in only four out of 18 districts of Burundi and only in the northern region of Uganda (Karamoja districts), and MAM services are provided in camps only in Rwanda, based on emergency response and according to WFP's approach of providing TSFP only in contexts where GAM is >5%. However, qualitative data from the online survey suggests that referrals are made to TSFPs not in camps. In some areas, location of MAM services does not coincide with where SAM admissions are high, indicating a potential divergence in targeting criteria by government and/or between UN agencies; e.g. TSFP targeted to areas of food insecurity and meeting GAM 'trigger' criteria for time-limited periods (e.g. seasonal), while the aim is for universal coverage of SAM treatment. This contributes to a mismatch at sub-national level between availability of MAM and SAM treatment when the former is configured around TSFP provision. It may also mean than MAM treatment is not available where factors other than food insecurity, such as disease, contribute to a MAM burden. It is important to note that there are examples of joint prioritisation between the agencies (e.g. 2018 Sahel lean season response in West Africa) that are not captured in this review.

While this exercise focused on mapping availability of TSFPs as a treatment option for MAM (reflecting WFP's operational experience and primary approach), TSFPs are not the only intervention options for MAM. Approaches to care for MAM children reported in the regions included nutrition counselling, referral to health centres, referral to 'preventive' services, and management in blanket supplementary feeding programmes (BSFPs). These interventions were not mapped in this exercise. It is also not possible to determine from this mapping the extent to which TSFPs are not present in settings where they should be according to criteria set out in the MAM decision tree or due to resource shortfalls.

One fifth of survey respondents reported that infants under six months old are not admitted for treatment. Further investigation

[13] Sonja Read and Marie McGrath (2018). Community management of uncomplicated malnourished infants under six months old: barriers to national policy change. *Field Exchange* issue 57, March 2018. p27. www.ennonline.net/fex/57/malnourishedinfantschange

[14] Moderate acute malnutrition: a decision tool for emergencies. MAM Task Force. Global Nutrition Cluster. Updated March 2017

into the quality of care for this age group and reasons why some centres are not including them in their protocol is merited; this may reflect recognised gaps in nationally evidenced guidance on community case management for infants under six months old.[13]

Continuum of acute malnutrition care

Both the data and reported experiences indicate that SAM treatment without MAM treatment (in the form of TSFPs) is commonplace. This pattern reflects differences in global strategies for the implementation of these two services; TSFPs are configured for delivery in emergency contexts that prioritise areas/populations of highest vulnerability according to several criteria, including GAM rate of greater than 10% , and may be seasonal. SAM treatment scale-up and 100% coverage targets are potentially realisable through an established system (health service) with widespread reach and governed by global WHO SAM guidance.

While agencies operating at sub-national level may have systems in place for monitoring referrals between SAM and MAM, online survey responses suggested that, although referrals may be captured in monitoring records in the originating facility (e.g. SC or OTP), follow-up at the receiving facility was weak. Systems do not appear to be well set up to follow a child for the duration of their treatment, which can also have implications for calculations of treatment success rates.

There is an absence of a macro-level view on referrals. SAM data is presented separately for inpatient and outpatient admissions, although it is not possible to tell from the data the extent to which these services co-exist and have the possibility to successfully refer from one to the other (e.g. referring a MAM case that presents to a SAM programme and vice versa). The exception to this is Kenya, where referrals between SC/OTP and TSFP is systematically recorded and reported at sub-national and national level.

When one agency has oversight of the range of services available for acute malnutrition in different areas (but not necessarily responsibility for the delivery of all of them), as is the case in Kenya (government), South Sudan (Nutrition Cluster) and UNHCR programmes, a clearer picture of their coherence can be presented. Somalia has some examples of integrated oversight at programme level whereby joint services are provided through one health facility and/or by one agency.

Similarly, the collation of SAM and MAM data by the government in Kenya, by the Nutrition Cluster in South Sudan and Somalia, and the mapping of services for acute malnutrition in the region undertaken by UNHCR demonstrates the benefit of one agency having overall oversight of SAM and MAM services in terms of ensuring their alignment and/or highlighting gaps where some services may be absent.

Integration of SAM and MAM services within the government health care system in Kenya and a robust community health strategy has enabled a continuum of care for acute malnutrition in the country.

A large proportion of respondents in the region (in particular Kenya, Somalia and South Sudan) reported discharging children treated for SAM to TSFP when they reach MAM criteria (60% MUAC >/= 115mm + no oedema; 51% WHZ >/=-3). This is of concern as WHO 2013 updated guidance on SAM treatment recommends discharge from OTP when a child has been cured of acute malnutrition (i.e. WHZ/WLZ ≥ -2 /MUAC ≤125mm, no bilateral pitting oedema). There is also a risk that these children may be lost to follow-up and that several changes in treatment types and locations (SC/OTP/TSFP) is difficult for the children and their families. In Somalia the updated IMAM guideline should help to address this issue.

In the absence of TSFP facilities to treat MAM, it was reported that children with MAM are often referred to other services, including BSFP, nutrition counselling, growth monitoring, prevention programmes (livelihoods, social protection, etc.), although 15% of respondents in the region reported that children with MAM are not referred at all.

According to the results of the online survey, the ability to refer from outpatient to inpatient services for SAM appears to be good across the region, with the exception of Somalia.

Key barriers to a continuum of care were identified by survey respondents as: lack of agency financial resources, insecurity/access issues, geographical targeting (particularly of MAM treatment), health facility capacity, TSFP pipeline disruption, and poor coordination amongst agencies supporting/providing services for SAM and MAM. Lack of clinical capacity was also cited as a barrier to implementation of effective in-patient care for SAM.

The feasibility of treating large MAM caseloads was raised as a key issue and some survey respondents highlighted the need to prioritise at-risk groups/individuals according to defined criteria and areas where GAM rates are high, while connecting those with MAM at lower risk of deterioration to social protection/safety nets services, maternal and child health and nutrition services, and BSFPs.

5.0 Recommendations

Availability of data

Mechanisms are needed to ensure that governments, UN agencies and implementing partners routinely look at and discuss data on coherence of service provision for MAM and SAM at national and sub-national level, specific to different country/regional contexts. UNICEF and WFP, as key sources of data, have key roles to play in this regard. Examples of where this is happening could be used to inform contexts where it is not. At a global level, information systems on acute malnutrition (such as Nutridash) could be adapted to include both SAM and MAM data.

There are considerable shortfalls in coverage and treatment data and the contextual information available regarding complicated case management. Clarity is needed regarding WHO's role in this regard.

The systematic collation and review of monthly and annual SAM and MAM data, including data on admissions and coverage (treatment and geographical) and duration of programming by sub-region at national and regional level would be valuable in better understanding the extent of convergence of services and where there are gaps in provision.

Donors have a valuable role to play in strengthening the quality and availability of data around the provision of a continuum of care. At country and regional levels donors should require and support the development of mechanisms proposed above to better collect and map data on provision of services across the continuum and between agencies.

Collection and collation of data on referrals from OTP/SC to TSFP and from TSFP to OTP/SC at sub-national, national and regional level as part of monthly and annual reporting systems would

highlight the availability of a continuum of care for acute malnutrition and where the gaps are. Kenya sub-national and national reporting format includes this and could be used as a working example.

The findings highlight the need for harmonised minimum reporting; systems and software such as the CMAM Report, UNICEF's Nutridash and the new WFP SCOPE CODA[15] may provide an opportunity for this. Recent developments to UNHCR's Health Information System may also provide important learning for integrated information continuity between services for acute malnutrition and with allied services such as health and child protection.

Coverage

Methods for calculating MAM and SAM treatment coverage by and between WFP and UNICEF should be reviewed with a view to standardisation and harmonisation to ensure comparability.

Governments, UN agencies and implementing partners need to systematically calculate and share country information on treatment and geographical coverage of SAM and MAM services.

Targeting criteria

As is currently the case in Kenya, Somalia and South Sudan, governments, UN agencies and implementing partners should consider aligning criteria in targeting at-risk groups and priority areas (e.g. TSFP and BSFP to areas with high SAM caseload and MAM caseload) across the region. Regular liaison between UN agencies, government, donors and respective implementing partners is needed, to enable coherence of service provision for MAM and SAM at sub-national level and ensure such complementarity.

Coordination

Greater coordination within government departments in relevant countries and between supporting agencies on geographical targeting is needed, where possible through existing mechanisms. Regular liaison on the part of government, UN agencies and respective implementing partners should examine coherence of service provision for MAM and SAM at sub-national level and the complementarity of criteria in targeting at-risk groups and priority areas (e.g. TSFP and BSFP to areas with high SAM caseload).

Mapping

A system which maps the provision of MAM and SAM services at sub-national level (beyond comparing SAM and MAM admissions) could support planning for SAM/MAM programming, harmonise provision of treatment for both conditions and ensure protection for children discharged cured from SAM services. The mapping identified such a system in Somalia and could be used as a model for relevant countries of the region to build on; other working examples are likely to exist, particularly in Cluster countries. The Nutrition Cluster 4W approach for basic mapping information on MAM/SAM services provides minimum information required on co-location of SAM and MAM services and could also inform approaches.

Addressing pipeline issues/funding shortages

Pipeline issues were commonly mentioned barriers by survey respondents, particularly in Ethiopia, Kenya and South Sudan. A more detailed analysis of the significant shortfalls in MAM treatment provision in some countries is needed: funding shortfalls and product pipeline breaks are identified in this review. Donors and UN agencies need to assess and reflect in more depth on the reasons why and the consequences this has for care. More specifically, a detailed global review of bottlenecks to predictable supply of RUTF and RUSF should be prioritised to further identify the extent and the patterns of pipeline breaks and major barriers to resolution, given the major impact these will obviously have on continuum of care.

Donors should play an active role in ensuring that SAM and MAM treatment services coexist and can function to the level needed; e.g. resourcing capacity-strengthening of national supply chain management systems and seeking accountability on how government and partners will make the provision of a full package of continuum of care more available and effective.

Harmonising service provision

It is necessary to further define benchmarks for what a continuum of care for acute malnutrition should look like and develop and build on examples of mechanisms/systems where SAM and MAM programming sit alongside each other; e.g. treatment of both SAM and MAM within one government health service, use of community health workers or mobile units to enable health service outreach, and a single implementing agency providing both MAM and SAM treatment in one area. Good examples in the region can be seen in Kenya, South Sudan and refugee settings overseen by UNHCR.

The provision of healthcare and other nutrition services (e.g. IYCF promotion and support, micronutrient supplementation), as well as linkages to prevention services, should be considered as a critical part of improving the continuum of acute malnutrition care. Such provision should be made in programme and policy documents at country/regional level and by governments and donors financing nutrition services (for example, see No Wasted Lives conference report Dakar 2017[16], which refers to the integration of prevention and treatment of acute malnutrition into routine healthcare services, alongside ongoing and critical strengthening of health systems).

Building capacity for successful referral

It is necessary to develop referral guidance and policy for SC-OTP-TSFP-BSFP referrals that highlight when to refer from one service to another, the maximum distance between one service and another, track successful referral, promote the provision of different services within a single facility, and minimise the number of treatment facilities a child needs to attend during recovery from acute malnutrition.

It is critical to improve referral systems so that children are properly followed through their treatment from admission through referral to discharge, ensuring that both originating and receiving facilities recognise and follow up the (successful) referral.

Referral systems can be strengthened by building the capacity of health workers and community health workers not only in detection and referral of acute malnutrition from community to health facility, but also between SC/OTP and TSFP/BSFP. Approaches such as 'family MUAC' that use mothers and community groups to support the screening and referral process are gaining ground in many countries and have potential to improve community-based referral. There are other country-specific examples (e.g. in Mali) of community-level associations and administration providing transport support to referrals between

[15] SCOPE CODA: WFP innovation to improve data management in malnutrition treatment. See *Field Exchange* issue 60, July 2019. p86. www.ennonline.net/scopecodawfp

[16] No Wasted Lives Coalition. Innovations in CMAM Treatment Protocols. A Workshop Report: Dakar, October 19th 2017. No Wasted Lives; 2018.

services for acute malnutrition and costs for these services being integrated into district-level budgets[17]. These examples should be disseminated and used elsewhere.

Protocols

This review highlights some gaps in provision of treatment for infants less than six months of age; WHO recommendations to include this age group in community-based management[18] are not being operationalised. Delayed treatment carries risk of excess morbidity and mortality for infants and likely contributes to subsequent child malnutrition caseload. The findings emphasise the value of and need for increased investment in ongoing initiatives to build evidence on community-based identification and management for this age group, particularly in outpatient care.

A review of SAM treatment protocols and practice should be undertaken at country level regarding how they are being operationalised, including rationales for adaptation/departure from WHO/national recommendations and on referral of cured SAM children to an SFP for a protection ration. While a review of protocols in most countries has been undertaken (source: UNICEF), an inconsistency in protocol implementation was identified as an issue in this mapping.

Given the gap in WHO guidance on MAM, where not already implemented, a review of country-level MAM protocols should be undertaken to understand current management strategies being adopted.

Research

It is critical to examine the means by which the MAM burden can be feasibly addressed and resourced, with particular consideration for how to identify and manage higher-risk children (e.g. those with infections; the socially vulnerable) and how to cater for those less at risk who may warrant less intensive interventions; e.g. referral to maternal and child health and nutrition, BSFP, safety nets/social protection.

The findings support the need for continued research and learning around simplified/combined/expanded protocols that aim to integrate the treatment of SAM and MAM, support the continuum of care and improve treatment coverage and effectiveness, as well as the management of at-risk infants less than six months of age in outpatient settings, both consistent with the No Wasted Lives priority research areas[19].

6.0 Conclusions

Considerable data is currently collected and collated on SAM and MAM treatment and involves huge effort and investment by government, agencies and individuals at regional, national and sub-national levels. While fully appreciating this commitment, and the short timeframe that was available for this exercise, the data obtained and experiences shared point to gaps in the nature, availability and consistency of data at regional and global level in understanding the extent to which a continuum of care for children with acute malnutrition is being achieved. Further information may be available at national and sub-national level and further investigation is required in order to draw firmer conclusions and further inform recommendations on continuum of care. Clarity on what constitutes continuity of care across different contexts and under different operational models is needed. The insights from this review suggest a more comprehensive global review is needed on current programming and the status of support across the continuum of care for acute malnutrition to inform subsequent strategy development and potential new ways of working.

An equivalent review was undertaken for selected countries in West and Central Africa and a full report is available. The findings and reflections from both reports feature in an ENN-authored article in Field Exchange issue 60.[20]

For more information, contact: Marie McGrath, ENN, marie@ennonline.net

[17] Integration of SAM treatment into health systems in Mali. Lessons learned brief. ENN, 2019. Due out October 2019.

[18] WHO. Guideline: Updates on the management of severe acute malnutrition in infants and children. Geneva: World Health Organization; 2013. https://apps.who.int/iris/bitstream/handle/10665/95584/9789241506328_eng.pdf?ua=1

[19] Prioritising acute malnutrition research: preliminary results of a CHNRI survey. *Field Exchange* issue 55, July 2017. p68. www.ennonline.net/fex/55/acutemalnutchnrisurveyprelim

[20] Rebecca Brown, Kate Sadler, Tanya Khara, Marie McGrath and Jeremy Shoham (2019). SAM and MAM programming in East and West Africa: An insight into continuum of service provision for acute malnutrition treatment. *Field Exchange* issue 60, July 2019. p67. www.ennonline.net/fex/60/sammammapping

Annex 1 Online Survey Questionnaire Outline (English)

ENN SAM/MAM Continuum of Care Online Survey

Emergency Nutrition Network (ENN) is currently undertaking a basic mapping exercise in West and East Africa, looking at the continuum of care for children with acute malnutrition; i.e. the extent to which treatment programmes for children with moderate acute malnutrition (MAM) and for those with severe acute malnutrition (SAM) are aligned and successfully making referrals between the two services. This is to help inform a planned special edition of the ENN publication *Field Exchange* on the continuum of acute malnutrition care.

This survey forms a part of this project and aims to collect country-specific information about SAM and MAM admission/discharge criteria and referrals and linkages between the two types of treatment programme.

The survey should not take more than 15 minutes to complete and will be open until Monday 4th March 2019. Thank you very much for your participation.

Basic information

1. Name

2. E-mail address

3. Are you happy to be contacted by the ENN team for clarifications or further information?

- Yes
- No

4. In which region are you based?

- East Africa (includes Burundi, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Uganda)
- West Africa (includes Burkina Faso, Cameroon, Chad, Central Africa, Mali, Mauritania, Niger, Nigeria, Senegal)

5. Country

6. Type of agency

- Government
- Non-governmental organisation
- UNICEF
- WFP
- UNHCR
- WHO

7. Your role covers: (Multiple answers possible)

- ☐ Project management
- ☐ Technical support to projects
- ☐ Data analysis / Monitoring and Evaluation
- ☐ Other (please specify)

8. Please indicate the administrative level at which you work

- ☐ National
- ☐ Sub-national (regional / district)
- ☐ Sub-national (village / community)
- ☐ Other (please specify)

9. In your area of operation, please indicate the main approach to treatment of acute malnutrition

- ☐ Services for the treatment of SAM and MAM are combined within one CMAM (Community-based Management of Acute Malnutrition)/IMAM (Integrated Management of Acute Malnutrition) programme
- ☐ Services for the treatment of SAM and MAM operate independently from each other
- ☐ Working towards integration of SAM and MAM services
- ☐ Other (please specify)

10. Please indicate how the agency is involved with the treatment of acute malnutrition

- ☐ Treatment of severe acute malnutrition (outpatient)
- ☐ Treatment of severe acute malnutrition (inpatient)
- ☐ Treatment of moderate acute malnutrition (through Targeted Supplementary Feeding Programme)
- ☐ Treatment of moderate acute malnutrition (through Blanket Supplementary Feeding Programme)
- ☐ Expanded protocol for treatment of both moderate and severe acute malnutrition
- ☐ Not involved in treatment of acute malnutrition
- ☐ Other (please specify)

11. The agency provides services in the area(s) of: (Multiple answers possible)

- [ ] Direct service delivery
- [ ] Support to government policy
- [ ] Support to government service delivery
- [ ] Capacity development
- [ ] Monitoring and evaluation
- [ ] Please provide any relevant additional information

Treatment of Severe Acute Malnutrition (SAM)

The following questions aim to collect information about admission / discharge criteria used for children with SAM and about referrals to services to treat MAM. If your agency is not involved in SAM Treatment, you will be taken to Page 6 (Treatment of Moderate Acute Malnutrition).

12. Does your agency work in treatment of SAM in the country in which you are based?

- Yes
- No

13. Is there a national protocol for SAM treatment?

- Yes
- No

Please provide any relevant additional information

14. If you are a non-government agency, do you have an agency protocol for SAM treatment?

- Yes
- No

Please provide any relevant additional information

15. Is the SAM treatment programme 'stand-alone' or integrated within the national health system?

- Stand-alone programme (non-government)
- Stand-alone programme (government)
- Integrated within national health system
- Other (please specify)

16. What admission criteria are used for SAM treatment for children 6-59 months? (Multiple answers possible)

- [ ] MUAC <115 mm
- [ ] Weight-for-height < -3 z-scores
- [ ] Presence of bilateral pitting oedema
- [ ] Other (please specify)

17. What discharge criteria are used from SAM treatment for children 6-59 months? (Multiple answers possible)

- [ ] MUAC >/= 125mm
- [ ] MUAC >/= 115 mm
- [ ] WFH >/= - 2 z-scores
- [ ] WFH >/= -3 z-scores
- [ ] No oedema
- [ ] Complications resolved
- [ ] Other (please specify)

18. What admission criteria are used from SAM treatment for infants 0-6 months? (Multiple answers possible)

- Weight-for-length <-3 z-scores
- Presence of bilateral pitting oedema
- Infants 0-6 months are not admitted for SAM treatment
- Other (please specify)

19. What discharge criteria are used from SAM treatment for infants 0-6 months? (Multiple answers possible)

- [ ] Weight-for-length >/= -3 z-scores
- [ ] Weight-for-length > /= -2 z-scores
- [ ] No oedema
- [ ] Infant is breastfeeding effectively or feeding well with an appropriate breastmilk substitute
- [ ] Adequate weight gain
- [ ] Infants 0-6 months are not admitted for SAM treatment
- [ ] Other (please specify)

20. Do all Outpatient Facilities for SAM treatment have an Inpatient Facility to which they can successfully refer complicated cases of SAM (i.e. referrals are consistently admitted?)

- [ ] An inpatient facility is available where children are consistently admitted
- [ ] An inpatient facility is available, but children are not consistently admitted
- [ ] An inpatient facility is not available

Please provide any relevant additional information

21. Do all Inpatient Facilities for SAM treatment have Outpatient Facilities to which they can successfully refer non-complicated / stabilised cases of SAM?

- Yes
- No

Please provide any additional relevant information

22. Are successful referrals captured in monitoring data?

- Yes
- No

Please provide any relevant additional information

23. Does the presence of a Supplementary Feeding Programme for MAM children affect the discharge criteria for SAM treatment?

- Yes
- No

If yes, in what way?

24. Where services for MAM treatment are available, at what point are children with SAM discharged to a Supplementary Feeding Programme?

- Children admitted for SAM are discharged to Targeted Supplementary Feeding once cured / recovered
- Children admitted for SAM are discharged to Blanket Supplementary Feeding once cured / recovered
- Children admitted for SAM are discharged to Targeted Supplementary Feeding once they reach MAM admission criteria
- No Supplementary Feeding Programme available

Please provide any relevant additional information

Referrals from SAM to MAM Programmes

The following questions aim to collect information about the availability of MAM services to which SAM treatment facilities make referrals

25. If a child presents with MAM at a SAM treatment centre, where are they referred to?

- Targeted Supplementary Feeding Programme
- Blanket Supplementary Feeding Programme
- No treatment service available for children with Moderate Acute Malnutrition

Please provide any relevant additional information

26. Where no treatment services for a child with MAM are available, to where is a child referred? (Multiple answers possible)

- To a Health Centre for medical check-up
- To a Health Centre for nutrition counselling
- To Growth Monitoring
- To prevention programmes (e.g. cash transfers, general food ration, livelihoods programmes)
- No referrals are made for children with MAM

Please provide any relevant additional information

27. Roughly what percentage of SAM treatment facilities in your zone of operation are able to successfully make referrals to MAM treatment services?

- 90-100%
- 70-90%
- 50-70%
- <50%
- <30%
- <10%
- 0

Treatment of moderate acute malnutrition

The following questions aim to collect information about admission / discharge criteria used for children with MAM and about referrals to services to treat SAM.

28. Is your agency involved in the treatment of MAM in the country in which you are based?

- Yes
- No

29. Is there a national protocol for the management of MAM?

- Yes
- No

Please provide any relevant additional information

30. If you are a non-government agency, do you have an agency protocol for management of MAM?

- Yes
- No

Please provide any relevant additional information

31. What admission criteria are used for MAM treatment? (Multiple answers possible

- [ ] MUAC >/= 115 mm and < 125 mm
- [ ] WFH >/= -3 z-scores and < -2 z-scores

Other (please specify)

32. What discharge criteria are used for MAM treatment? (Multiple answers possible)

- [ ] MUAC >/= 125mm
- [ ] WFH >/= -2 z-scores

Other (please specify)

33. Is this a 'stand-alone' programme or integrated within the national health system?

- [ ] Stand-alone (non-government)
- [ ] Stand-alone (government)
- [ ] Integrated within national health system

Other (please specify)

34. Which is the main type of supplementary product for treatment of MAM in children 6-59 months in your area of operation? (Multiple answers possible)

- [ ] Oil-based Ready to Use Supplementary Foods (RUSFs)
- [ ] Fortified Blended Foods (FBFs) containing milk powder
- [ ] Fortified blended foods (FBFs) without milk powder Biscuits
- [ ] Locally produced supplementary foods

Other (please specify)

35. Roughly what percentage of MAM treatment facilities are able to successfully make referrals to SAM treatment services if a child is identified with SAM (i.e. children are consistently admitted)?

- [ ] 90-100%
- [ ] 70-90%
- [ ] 50-70%
- [ ] <50%
- [ ] <30%
- [ ] <10%
- [ ] 0

Please add any other relevant information

36. Are children recovering / recovered from MAM referred to any additional services? (Multiple answers possible)

- [ ] To health centre for medical follow-up
- [ ] To nutrition counselling
- [ ] To growth monitoring
- [ ] To prevention programmes (e.g. food assistance, livelihoods programmes)
- [ ] No further referrals are made

Other (please specify)

37. What are the main barriers to ensuring a continuum of care for children with acute malnutrition?

Continuum of Care is defined here as the extent to which treatment programmes for children with Moderate Acute Malnutrition (MAM) and for those with Severe Acute Malnutrition (SAM) are aligned and successfully making referrals between the two services.

- [ ] Lack of financial resources
- [ ] Pipeline issues
- [ ] De-prioritisation of treatment of MAM
- [ ] Lack of implementing agencies
- [ ] Difference in the geographical targeting between MAM and SAM services
- [ ] Limited geographical coverage of services implemented at health facility level
- [ ] Lack of capacity at health centres
- [ ] Limited infrastructure
- [ ] High defaulting rates

Insecurity / access issues

Please provide any relevant additional information

38. Please use the box below to give any further comments; e.g. good models of continuum of care for acute malnutrition in your area of operation, how continuum of care can be improved, etc.