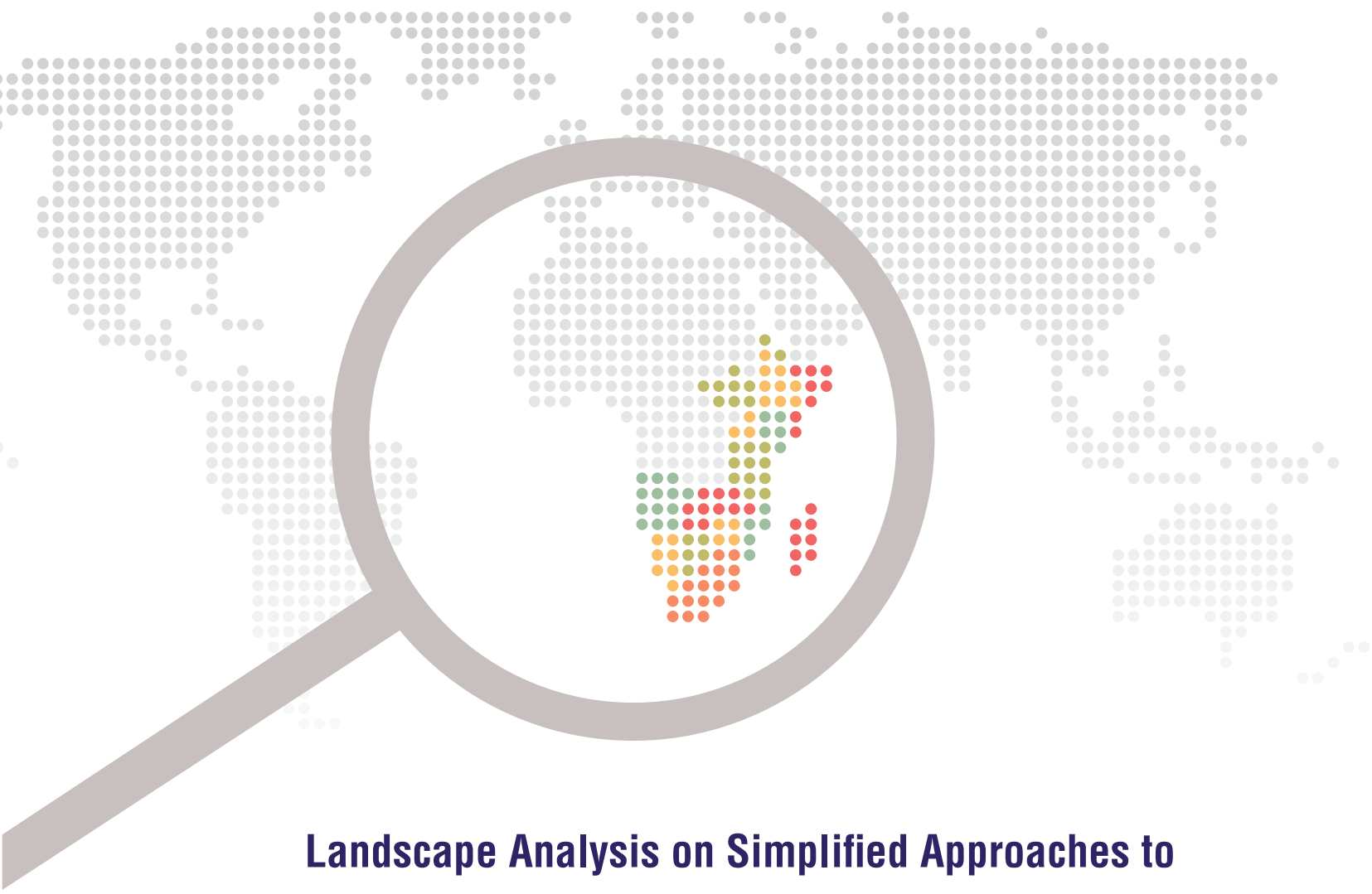

Landscape Analysis on Simplified Approaches to

COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION

in the East and Southern Africa Region

JUNE 2021

unicef

for every child

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CONTENTS

ACKNOWLEDGEMENTS

The landscape analysis design, data collection and report were conducted and authored by Michele Goergen with support from the UNICEF ESAR Office including Tewolde Daniel, Marjorie Volege, Mara Nyawo and Christiane Rudert. Many thanks to all countries included in the landscape analysis for their time and support in completing the tools, participating in interviews and validating this document. Thank you to all implementing partners for participating in interviews including Concern Worldwide, Save the Children, Médecins Sans Frontières, Action Contre la Faim, International Rescue Committee, WHO, WFP, UNHCR, ECHO and BHA. Finally, to the team at UNICEF ESAR for tirelessly working to provide support, insight and perspective on this analysis.

SUMMARY

Background

Strong efforts have been made globally to reduce wasting in children less than five years of age and meet the sustainable development goal (SDG) of reducing wasting to <3% by 2030. The UN Global Action Plan (GAP) on wasting identifies four critical outcomes to achieving the SDG target. To realize these outcomes, countries in the Eastern and Southern Africa Region (ESAR) have started implementing a range of simplified approaches for the treatment of wasting, with implementation recently accelerated due to the COVID-19 pandemic. Limited information exists on the scale and scope of simplified approaches in the region. As a part of overall efforts to scale up simplified approaches, a landscape analysis was undertaken to gather information on the size, scope, best practices and gaps in simplified approaches implemented in the region and serve as the basis to document evidence and develop a roadmap for scale up and capacity building.

Methodology

The Landscape Analysis was conducted in thirteen countries in the Eastern and Southern Africa region. Countries were selected if they were either GAP countries or have initiated simplified approaches, including Angola, Comoros, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Somalia, South Africa, South Sudan, Uganda, Zimbabwe.

The primary question for the landscape analysis was:

What simplified approaches are being implemented and what actions are required to accelerate efforts to scale up simplified approaches for the early identification and treatment of child wasting across Eastern and Southern Africa?

The methodology used to conduct this landscape analysis included:

- **Key Document Review:** Documents reviewed included nutrition policies and guidance notes, strategies, annual planning documents, tools, reports, evaluations and research.
- **Mapping:** A mapping tool was developed and sent to all country offices for completion.
- **Key Informant interviews:** A total of forty-six people were interviewed for this landscape analysis including thirty-three people from the thirteen selected countries and thirteen people from eleven UN and NGO partners working in the region.

Key Findings

All thirteen countries included in the landscape analysis have a baseline level of CMAM services including treatment protocols and inclusion in national planning. Thirty-eight percent of countries have CMAM services included in their budgets leaving 61% of countries, with only partial or no inclusion of CMAM services in national budgets, relying heavily on donor funding. A total of forty-eight projects implementing simplified approaches were identified in the region. The main reasons for implementing simplified approaches include emergency adaptations and as research/pilot projects with the onset of the COVID-19 pandemic as the main reason for scale up.

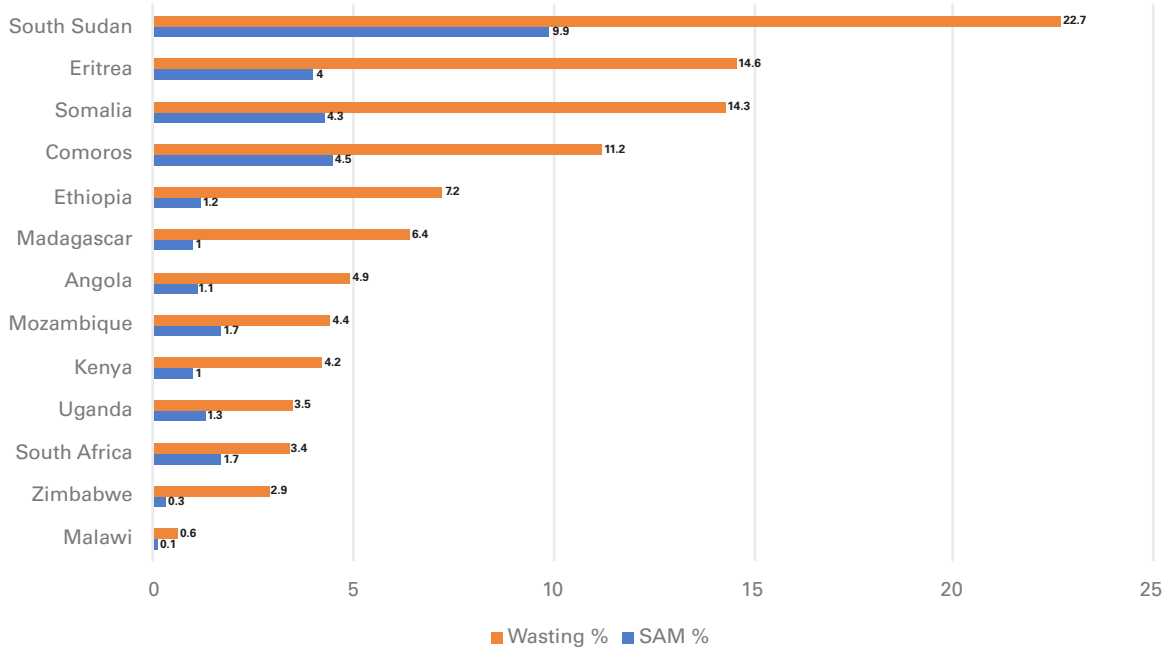
The simplified approaches with the most traction for scale up include family MUAC and reduced frequency of follow-up visits to health facilities. Promising outcomes are seen from pilots and emergency implementation of CHW treatment of wasting, modified dosage and single product to treatment, but these approaches require more implementation research focusing on integration and impact on the health system and are not yet ready to scale. MUAC only admissions is the most controversial approach due to fears of exclusion of wasted children who require treatment. Data collection and documentation of simplified approaches has been identified as a main challenge in the region. This is followed by operationalizing simplified approaches into the health system, including identification of approaches that are most suitable in the varying contexts along the spectrum of emergency to development settings.

Capacity building and translating newly developed guidance notes and strategies on simplified approaches into training packages also emerged as a gap. Overall, there is a strong interest in simplified approaches to wasting treatment in the region from all partners including governments. Continued documentation of emerging evidence on simplified approaches will help shape advocacy and implementation efforts supporting the transition of simplified approaches from research and emergency adaptations to scale up and integration into the health system.

INTRODUCTION AND BACKGROUND

Malnutrition contributes to almost half of all deaths in children under-five years of age globally. In 2020 approximately 45.4 million children under five were estimated to suffer from wasting, translating into 6.7% of all children under 5 years of age.[1] Of those children, 13.6 million were severely wasted and 31.8 million children were moderately wasted. The impact of the COVID-19 pandemic, and subsequent reductions in household wealth and availability and affordability of nutritious food and essential nutrition services, could mean that 15% or 1.15 times more children were affected by wasting in 2020 than estimated.[2] In the Eastern and Southern Africa Region (ESAR), the prevalence of Global Acute Malnutrition (GAM) was 5.3% and Severe Acute Malnutrition (SAM) was 1.1%[1]. Of the countries selected for the landscape analysis, four countries have GAM rates at a national level above the 'high' threshold of 10% including South Sudan, Eritrea, Somalia[1,3] highlighting the need and urgency to expand treatment of wasting.

FIGURE 1 Prevalence of Acute Malnutrition ESA Region



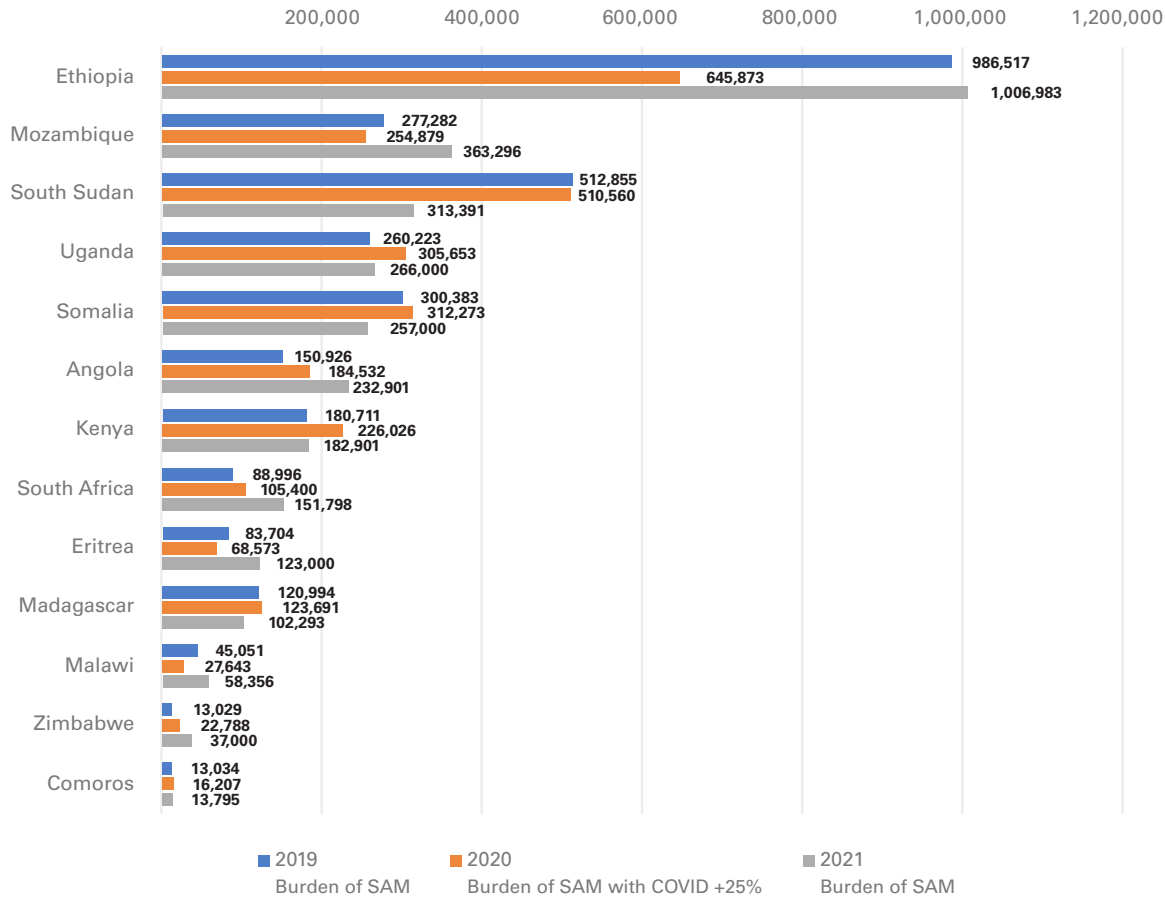
[1] UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates Key findings of the 2021 edition

[2] Headey, Derek, et al. (Standing Together for Nutrition consortium), 'Impacts of COVID-19 on childhood malnutrition and nutrition- related mortality', *The Lancet*, vol. 396, no. 10250, August 2020, pp.519–521

[3] Mercedes de Onis, Elaine Borghi, Mary Arimond, Patrick Webb, Trevor Croft, Kuntal Saha, Luz Maria De-Regil, Faith Thuita, Rebecca Heidkamp, Julia Krasevec,Chika Hayashi and Rafael Flores-Ayala. *Prevalence thresholds for wasting, overweight and stunting in children under 5 years*. Public Health Nutrition, 2018.

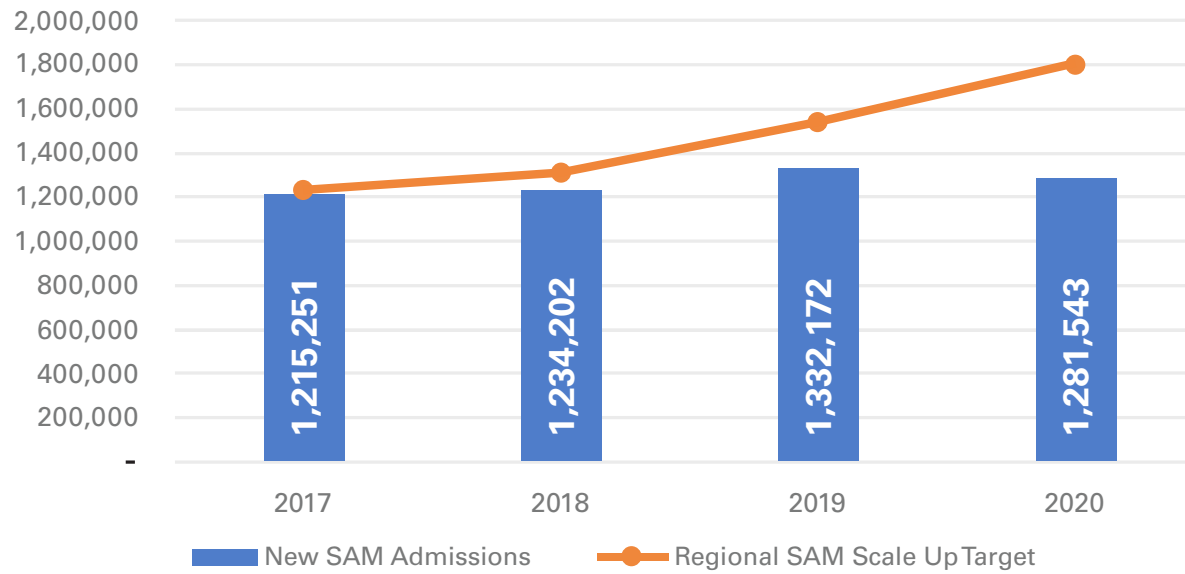
Taking into consideration incidence, estimates of SAM burden provide a more reliable representation of the nutrition situation. In the thirteen countries selected for the landscape analysis, the total burden of SAM has increased by 2% between 2019 and 2021 going from 3,033,703 to 3,108,714 respectively. Ethiopia, Mozambique and South Sudan, countries that regularly face emergencies, have the highest SAM burden.

FIGURE 2 SAM Burden 2019-2021



Admissions targets in the region have increased while actual admissions have shown a slight decrease in 2020, perhaps due to COVID-19 movement restrictions and reduction of health seeking behaviors in the population.

FIGURE 3 ESAR New Admissions vs Target



The Sustainable Development Goals (SDGs) aim to reduce the proportion of wasted children to <3% by 2030. Since the SDGs were adopted, the proportion of wasted children globally has remained unchanged at ~7%, with most programs for wasted children focusing on the provision of therapeutic treatment[4]. Therefore, in June 2019, the UN Secretary General commissioned UN agencies working on nutrition (FAO, UNHCR, UNICEF, WFP and WHO) with preparing the first-ever Global Action Plan (GAP) on Child Wasting. The plan aimed to respond to the slow progress towards achieving the Sustainable Development Goal on reducing childhood wasting and to growing calls for a more coordinated and streamlined UN approach to address this challenge. The GAP Framework identifies four critical outcomes to achieving the SDG target on child wasting. These include improving early detection and treatment for those who need it, accelerating delivery of essential actions while addressing the immediate determinants of child wasting, and aligning actions across multiple systems to simultaneously address underlying drivers that limit our collective ability to protect communities, households and children from wasting.

The community-based approach for treatment of Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) was first introduced in the early 2000s. Prior to this, children with SAM were treated in inpatient facilities, which posed many challenges such as long recovery periods, overcrowding and difficulties for families to access and remain in treatment. With the development of ready-to-use-therapeutic food (RUTF) the CMAM model was born and shown to be so effective that it was endorsed by multiple UN agencies and lead to the development of treatment guidelines by WHO. These Protocols and guidelines for the community-based management of acute malnutrition (CMAM) have been implemented globally and efforts to improve coverage, quality of services and integration of services into government health systems have been made. Globally, CMAM services have been scaled up as part of life-saving response to cyclical increase in wasting. However, coverage remains a challenge with only 25% of severely wasted children admitted to treatment and even fewer children with moderate wasting accessing treatment[5]. Limited resources and capacities for wasting treatment including financial and supply pipeline challenges, fragile health systems, and low accessibility to treatment services hinder effective and efficient scale up of wasting services[6].

[1] UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates Key findings of the 2021 edition

[2] Headey, Derek, et al. (Standing Together for Nutrition consortium), 'Impacts of COVID-19 on childhood malnutrition and nutrition- related mortality', *The Lancet*, vol. 396, no. 10250, August 2020, pp.519–521

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In the last two decades, several adaptations have been developed to improve coverage, effectiveness and efficiency of CMAM services. These adaptations to the traditional CMAM guidelines, known as "simplified approaches", include a range of adaptations to existing CMAM protocols and guidelines that aim to improve the coverage and reduce the costs of caring for children with uncomplicated wasting while maintaining quality treatment outcomes. The seven main simplifications that the most evidence has been generated on globally include:

1. Screening using mid-upper arm circumference (MUAC) at household level (Family-MUAC)
2. Delivery of acute malnutrition management by community health workers (CHW Treatment)
3. Using MUAC and edema as the only admission/discharge criteria (MUAC-only admission)
4. Modified dosage of RUTF (including reduction over the course of recovery)
5. Use of one product – ready-to-use therapeutic food (RUTF) – to treat wasting, including both moderate and severe acute malnutrition (single product for treatment)
6. Reduced visits to health facility during treatment
7. Expanded admission and discharge criteria based on MUAC >125mm

In the Eastern and Southern Africa Region, multiple countries and partners have been implementing simplified approaches necessitated due to operational constraints and emergency adaptations, accelerated recently by the COVID-19 pandemic. In addition, many countries and partners are conducting research on the various approaches. In 2019, a consultation with the nutrition teams of UNHCR, UNICEF, WFP and WHO concluded that research to date is promising but limited in scope and context specificity and is conducted on a small scale. A global working group focusing on Simplified Approaches was established in 2020 to support the implementation of simplified approaches by providing a platform to exchange operational experiences, identify and collaborate on the development of tools, guidance, learning and evidence generation on a global level. In the West and Central Africa Region, a technical subgroup was formed to support a regional shift toward simplified approaches. In this light, efforts are required in the Eastern and Southern Africa Region (ESAR) to contextualize and consolidate experiences with simplified approaches. Documenting simplified approaches in the ESAR will help identify gaps, areas that require technical support, lessons learned and best practices. It is anticipated that the learning will contribute to evidence and advocacy for adopting and scaling such approaches as part of government protocols.

PURPOSE OF THE LANDSCAPE ANALYSIS

Many countries in the Eastern and Southern Africa Region (ESAR) are implementing simplified approaches, however there is limited information on the scale and scope of simplified approaches in the region. As a result, simplified approaches are predominately implemented at a small or medium scale in an emergency context or pilot environment with limited capture of data, documentation and lessons learned. A landscape analysis will help lay the foundation to develop context specific plans to support next steps in maturing some of these approaches and operationalizing them on a wider scale. Further investigation is required to better understand and document simplified approaches within the context of health systems. As a part of overall efforts to scale up simplified approaches in the region, the landscape analysis will help gather information on the size, scope, best practices and gaps in simplified approaches implemented in the region to date and serve as the basis to document evidence and develop a roadmap for scale up and capacity building.

The landscape analysis focuses on thirteen countries in the region which were identified to have initiated one or more simplified approach including: Angola, Comoros, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Somalia, South Africa, South Sudan Uganda, Zimbabwe.

The specific objectives of the landscape analysis include:

- To present a clear overview of the simplified approaches implemented in the ESAR including the scope and scale of implementation and available evidence to contribute to outstanding gaps in the existing global and regional evidence base.
- To summarize the available evidence, showing what is known about the impacts and outcomes of the various approaches that have been implemented
- Assess the level of integration of simplified approaches within the health system
- To assess opportunities for innovating new simplifications on identification, in-patient and outpatient management, as well as program management of wasting
- To determine a roadmap for mainstreaming simplified approaches in the region identifying strengths and gaps in evidence and practice for ongoing capacity building and assessing Government readiness and steps to incorporate them into national protocols and guidelines and system strengthening efforts.

Research Questions

The primary question the landscape analysis seeks to answer is:

What simplified approaches are being implemented and what actions are required to accelerate efforts to scale up simplified approaches for the early identification and treatment of child wasting across Eastern and Southern Africa

The analysis will also explore several secondary questions, organized by theme, to reveal a clear picture of simplified approaches in the region including:

Scope of Existing CMAM Services

- What is the geographic coverage of CMAM in the country?
- How mainstreamed is CMAM within the health system?
- What coordination and capacity building mechanisms are in place for CMAM?

Data Collection and Documentation

- How is data collected on simplified approaches (through health system, parallel to HS, through research, etc.)
- What reporting mechanisms and lines are in place?
- Is any research being conducted? What type of research?

Simplified Approaches

- What simplified approaches are currently used in the target countries?
- What is the scale of the implementation of simplified approaches used so far?
- Which partners are supporting simplified approaches?
- To what extent has the implementation of simplified approaches filled a gap at regional or country level for improving coverage and cost-effectiveness in the detection and treatment of malnutrition without compromising quality of care?
- What evidence of effectiveness has been generated for each approach implemented, or research efforts in progress?

Challenges and Opportunities

- What are the main challenges faced in implementing Simplified Approaches so far?
- What additional opportunities have been identified in Simplified Approaches?

National Commitment to Simplified Approaches

- What is the effect of implementing simplified approaches on the overall health system from national level policy making and operational shifts to local level health facility staff workload and quality of treatment?
- What is the level of political commitment for the implementation of these approaches?
- To what extent are the simplified approaches integrated within the health system, including information systems?
- What is the Government level of readiness and the steps to incorporate simplified approaches into national protocols and guidelines and system strengthening efforts – depending on the maturity of implementation of simplified approaches?

To execute the landscape analysis, country offices were informed during existing regional meetings on the overall objectives, activities and scope of the analysis. A mapping tool was developed and sent to relevant country offices to compile information on simplified approaches implemented based on the analytical framework (see Annex 1) and research questions above. Following the distribution of the tool, interviews were held with each country office to ensure understanding of the tool and gather additional information.

METHODOLOGY

The methodology used to develop the landscape analysis included:

1. **Key Document Review:** A comprehensive analysis of all relevant information and materials related to the simplified approaches from each country was conducted. Documents reviewed included nutrition policies and guidance notes, strategies, annual planning, data, tools, reports, evaluations and research.
2. **Mapping:** A mapping exercise was conducted to identify who is doing what in the region in regard to simplified approaches to CMAM. A mapping tool was developed to obtain an overview of who is doing what, where and at what scale (see tool in annex 2). The mapping tool was sent to all country offices for completion.
3. **Key Informant interviews:** A total of forty-six people were interviewed for this landscape analysis. This includes thirty-three people from the thirteen selected countries and thirteen people from eleven UN and NGO partners working in the region. Interviews focused on providing additional context to the landscape analysis and simplified approaches in the region as well as identification strengths and gaps.

RESULTS

1. REGIONAL FINDINGS

As there is a growing database of research and corresponding documented evidence on simplified approaches in the region and globally, efforts here have been made to avoid duplication of learnings from published research. This landscape analysis aims to compile the main findings from interviews and data collection tools, focusing on simplified approaches from an operational and health system perspective in different contexts in the region. An interactive dashboard developed by UNICEF, with the support of a global simplified approaches working group, shares information on all studies, pilots and projects testing simplified approaches and can be found here.

1.1 Scope of Existing CMAM Services

One hundred percent of countries included in the landscape analysis implement CMAM services to some extent. Ten out of the thirteen countries offer CMAM services in more than 50% of health facilities (figure 4). Lowest coverage of CMAM services is observed in Uganda, Angola and Comoros. Uganda faces funding challenges, though there are ongoing efforts to support the government to integrate nutrition into health services at scale. Angola and Comoros have both newly initiated CMAM services within the past three years and are slowly working to increase geographical coverage.

The scope of CMAM services across the region varies, though 100% of countries included in the landscape analysis have national CMAM protocols and CMAM services included, to some extent, in national planning. Thirty-eight percent of countries have CMAM services included in their budgets leaving 61% of countries with only partial or no inclusion of CMAM services in national budgets.

CMAM implementation in the selected countries in the East and Southern Africa Region vary in context from fragile/emergency to development/ health system strengthening. Emergencies vary from chronic long-term emergencies to seasonal climate related shocks, such as droughts and flooding. Figure 3 shows a map of the region with the percent of health facilities in each country implementing CMAM services.

FIGURE 4 Percentage of HF implementing CMAM

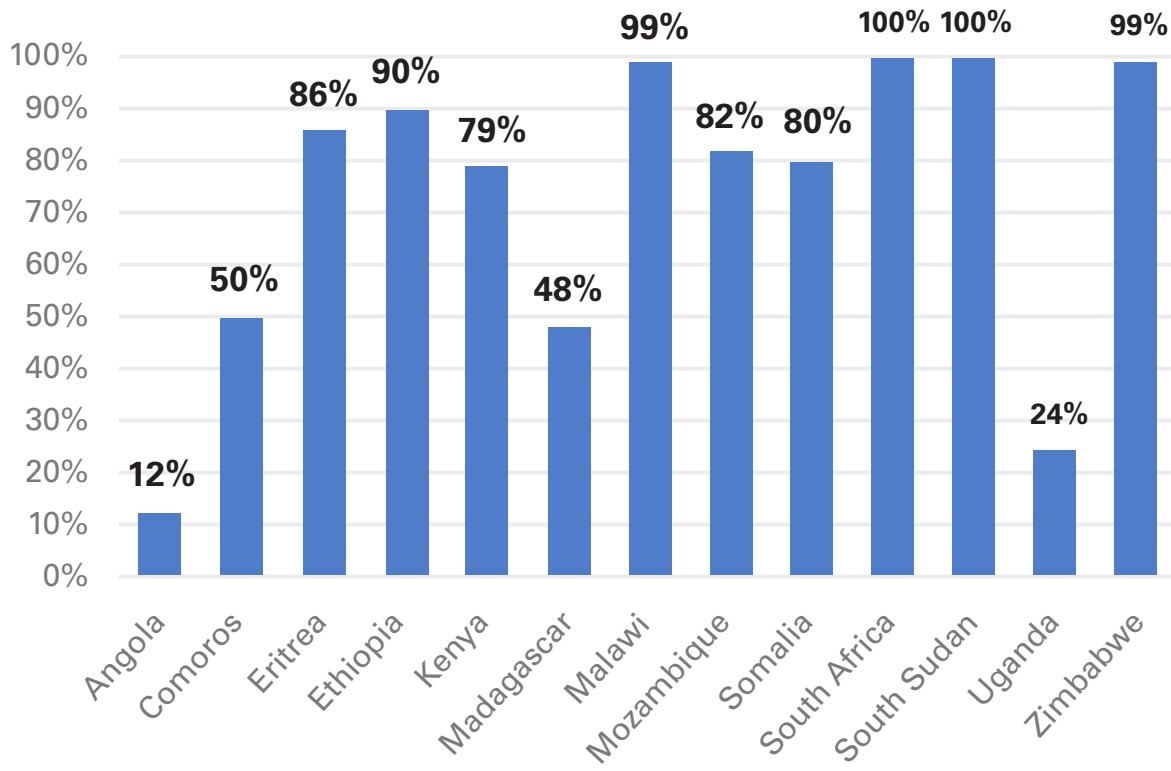
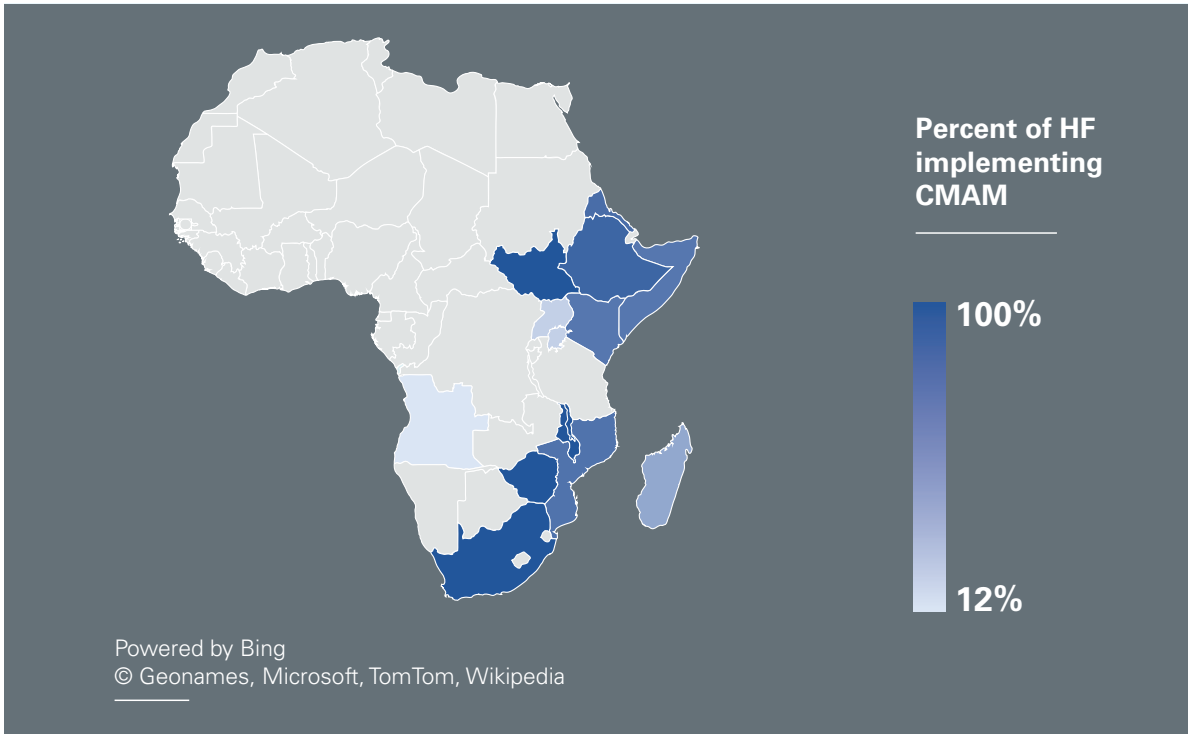


FIGURE 5 Percent of HF implementing CMAM Services



A majority of countries in the Eastern and Southern Africa Region deliver CMAM services through the health system. As efforts have been made to strengthen the health system, existing bottlenecks need to be addressed to continue to strengthen CMAM services and capitalize on what is working. The scope of CMAM services in each country included in the landscape analysis is in table one below.

TABLE 1 Scope of CMAM Services per Country

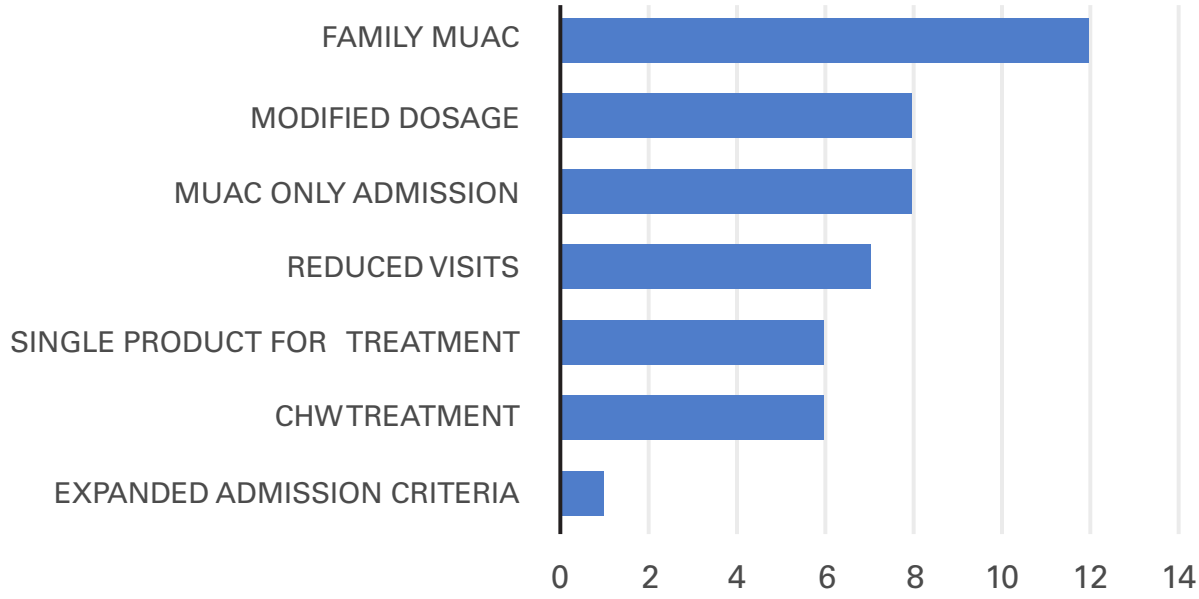
Country	Scope of Existing CMAM Services				
	Existence of National CMAM protocols and guidance	CMAM Services included in National Nutrition Plans	CMAM services at least partially included in National budgets	Coordination Mechanisms in place to support CMAM services	Percent of HF implementing CMAM
Angola	YES	YES	YES	YES	12%
Comoros	YES	YES	YES	YES	50%
Eritrea	YES	YES	YES	N/A	86%
Ethiopia	YES	YES	PARTIAL	YES	>90%
Kenya	YES	YES	PARTIAL	YES	79%
Madagascar	YES	YES	PARTIAL	YES	48%
Malawi	YES	YES	PARTIAL	YES	99%
Mozambique	YES	YES	NO	YES	82%
Somalia	YES	YES	NO	YES	>80%
South Africa	YES	YES	YES	YES	100%
South Sudan	YES	NO	NO	YES	100%
Uganda	YES	YES	PARTIAL	YES	24%
Zimbabwe	YES	YES	YES	YES	99%

1.2 Simplified approaches Implemented

A total of 48 pilots or projects with simplified approaches are implemented in the thirteen countries included in the landscape analysis in the Eastern and Southern Africa Region.

Family MUAC is the most popular approach and is implemented in 12 countries followed by MUAC only admissions and modified dosage of therapeutic foods implemented in eight countries each. Figure 6 details the number of times each approach is implemented in the region.

FIGURE 6 Number of Countries Implementing Each Approach



A majority of countries are implementing, or under discussion to implement, more than one approach. The mode of intervention, scope and coverage varies in each country. Table 2 below details the different approaches implemented in each country. Scope and coverage of the approaches in each country are outlined in section two of this report.

TABLE 2 Simplified Approaches Implemented Per Country

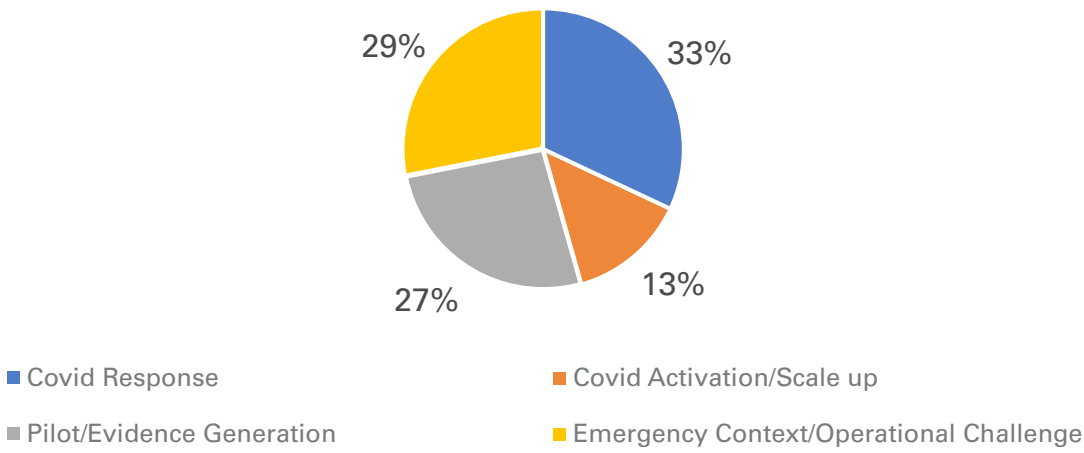
Country	Family MUAC	CHW Treatment	MUAC Only Admission	Modified Dosage	Single Product to Treatment	Expanded Admission Criteria	Reduced Visit
Angola							
Comoros							
Eritrea							
Ethiopia							
Kenya							
Madagascar							
Malawi							
Mozambique							
Somalia							
South Africa							
South Sudan							
Uganda							
Zimbabwe							

1.3 Reason for Simplification

Prior to the COVID-19 pandemic, simplified approaches were implemented as a response to emergency contexts, to overcome operational challenges or as formal or operational research and pilots. The onset of COVID-19 resulted in a total of 46% of simplifications being initiated or activated/scaled up to minimize disruption to existing CMAM services within the context of movement restrictions and social distancing measures. Figure 7 details the reasons for implementing simplified approaches in the region as defined here:

- **COVID-19 Response -** Simplification newly initiated and implemented in direct response to the COVID-19 pandemic
- **COVID-19 Activation/scale up -** The simplification already existed in country and was activated or scaled up in response to the COVID-19 pandemic
- **Pilot/Evidence Generation -** The simplification was initiated or implemented as a pilot to generate evidence
- **Emergency Context/Operational Challenge -** The simplification was implemented in an emergency context or to address an operational challenge, such as limited MAM services or to improve coverage, not in relation to the COVID-19 pandemic

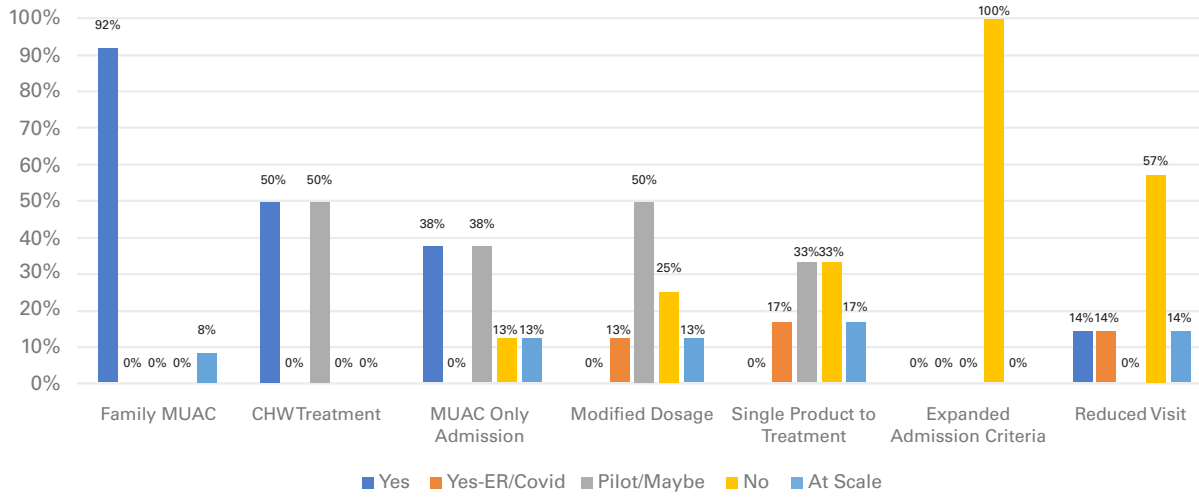
FIGURE 7 Reason for Simplification



1.4 Plans to Scale up

Scale up of simplified approaches depends on a number of factors, including health system capacity, waiting for results of pilots, addressing operational challenges and gaining government buy-in. Some countries are planning scale up due to ongoing emergency response efforts, but not as a permanent change. Most scale up plans involve updated guidance notes and targeted areas of implementation and populations. As the below chart indicates, of the countries implementing each simplification, family MUAC has the most traction in the region with 100% of countries implementing the approach at scale or planning to scale it up. MUAC only admission is the most debated approach with partners advocating to end this approach in some countries.

FIGURE 8 Scale up plans for the % of countries implementing the approach



1.5 Data Collection and Research

Data collection on simplified approaches, outside of controlled research and pilots, remains a challenge. Documentation of simplified approaches often requires a change to routine health system data collection mechanisms. Data collection and documentation for simplified approaches implemented in emergency contexts is even more challenging and often overlooked due to competing priorities of the emergency response. The graph below details data collection mechanisms in each country and summarizes research initiatives in each country.

TABLE 3 Data Collection and Research Per Country

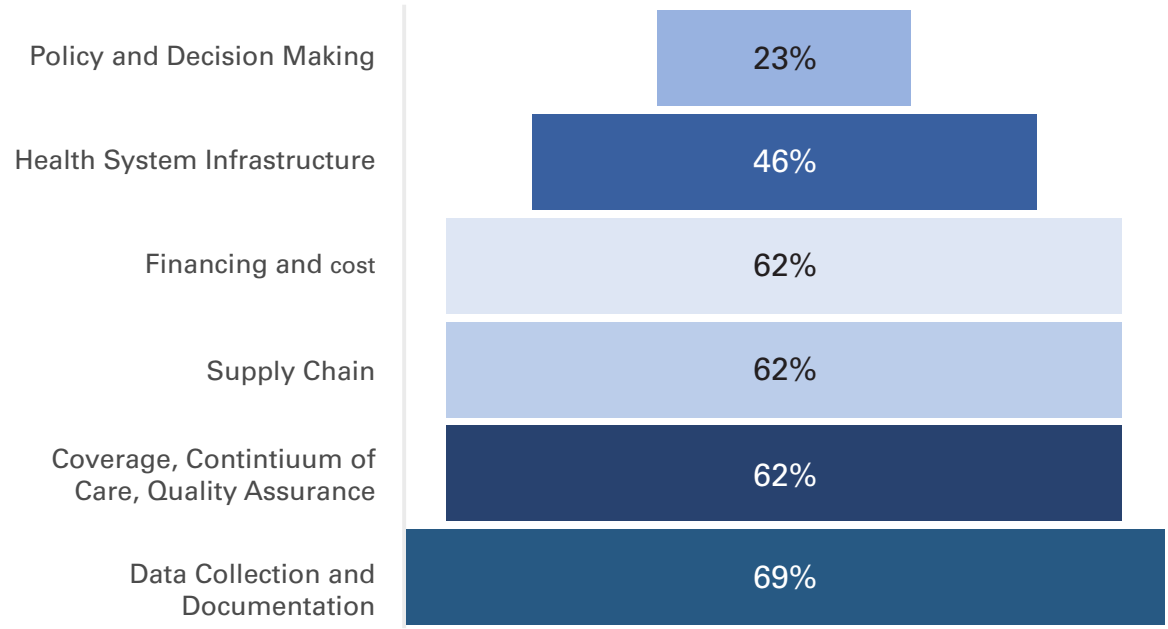
		Research		
Country	**Routine Data Collection on the Simplified Approach**	**Completed**	**Ongoing**	**Planned**
Angola	Through the health system; Pilot with KoboToolBox initiated	None Reported	None Reported	Implementation of ODK to collect nutrition data from Health facilities-Pilot in 4 provinces
Comoros	Data collected through the Health System and Kobotoolbox	None Reported	None Reported	None Reported
Eritrea	Not yet implemented	None Reported	None Reported	None Reported
Ethiopia	Parallel and from the selected research sites additionally we will have research data	None Reported	None Reported	Implementation/ Operational research on Simplified Protocol (modified Dosage) and Family MUAC
Kenya	Parallel data collection	Previous research undertaken in 2016 in Isiolo county. Pilot undertaken in Tana River county in 2019	None Reported	Planned Pilot of ICCM in 2 counties

		Research		
Country	**Routine Data Collection on the Simplified Approach**	**Completed**	**Ongoing**	**Planned**
Madagascar	Not collecting routine data for Family MUAC	Evaluation of Family MUAC	MSF-F: Implementing Simplified Protocol in 15 communities in 2 Southern districts	Simplified protocol will be piloted in selected areas
Malawi	Parallel for family MUAC and not started collecting data yet for CMAM/iCCM integration	None Reported	Operational research to test the effectiveness of caregivers to accurately conduct MUAC assessment and refer their children	None Reported
Mozambique	through health system (but through a parallel database because it is not yet included in the national health information system)	Evaluation of CMAM treatment through CHW's	None Reported	Implementation research in the planning phase; family MUAC pilot; Simplified protocol Pilot
Somalia	through the health system (sector management information system) – the ONA an online platform used for Somalia nutrition information management as well as DHIS2; other partner reports notably quarterly partner reports	None reported	None reported	None reported
South Africa	parallel process by the implementing partner 1 January 2021 to 30 June 2022	None Reported	None Reported	Planned Evaluation of Family MUAC
South Sudan	Routine data collection managed through cluster and monthly reports for Family MUAC and trainings	None Reported	None Reported	None Reported
Uganda	through health system-HMIS	Data elements on MUAC are available in the routine HMIS/ DHIS2	None Reported	Understanding the uptake of Family MUAC in Uganda. Still at the design stage.
Zimbabwe	Through health system, parallel (RapidPro)	None Reported	None Reported	None Reported

1.6 Challenges

There are a number of challenges to implementing and operationalizing simplified approaches within the health system. Operational challenges have been analyzed through different categories closely corresponding to the six building blocks of health system strengthening. Data collection and documentation was the most reported challenge following a three-way tie between financing and cost, supply chain, and coverage, continuum of care and quality assurance. The basis for effective implementation of simplified approaches is to work within the health system and address ongoing challenges to facilitate treatment of wasting. Figure 7 details the challenges reported and more information in relation to each approach can be found in section two of this report.

FIGURE 9 % of Countries Reporting Challenge



Details on each of the challenges are listed below. Many long-standing challenges with CMAM services were cited. As simplified approaches are designed to address these challenges, they are also contextually specific and dependent on the capacity and strength of the health system. Many of the challenges listed below support the already initiated development of a simplified approaches toolkit at global level that will provide detailed information on simplified approaches with a starter pack, implementation tools and monitoring and evaluation resources.

Financing and Cost: Reported challenges with financing and cost were varied with many countries reporting underfunding of existing CMAM services within the health system. Questions around the real cost savings of simplified approaches requires more documentation. Already high costs of therapeutic foods lead to concerns regarding the ability to absorb additional costs as coverage improves and caseloads go up, especially in addressing the MAM burden. There is a need for planning and costing scenarios for using a single product and reduced dose to estimate how many children could be expected to be covered. Other challenges concerning financing include limited funding for operational research, inadequate resources for scale up and the high cost of capacity building including trainings and corresponding development of new training materials.

Supply Chain: Existing challenges with supply chain management such as parallel supply chain systems, frequent stock shortages due to issues with availability of funding and accessing hard to reach areas in emergency contexts are ongoing challenges within the health system that spill over

to simplified approaches. Ensuring oversight of therapeutic foods at community level, both in the context of pipeline monitoring and reporting as well as avoiding leakage into communities was also a concern.

Policy and Decision Making: Most challenges regarding policy and decision making are in regard to changing existing methods of service delivery and the impact on the health system. A lack of clear guidance on when to implement simplified approaches and in what context leads to hesitation with key decision makers. Resource allocation within the health system and convincing partners to make long-term plans with simplified approaches is also a challenge. Additionally, questions around how and when to translate research into policy and when to integrate simplified approaches with existing protocols arose. Advocacy for most of the simplified approaches implemented in the region took a long time, often more than a year, drawing concerns around the length of time it takes to develop guidance notes or SOPs on the simplification at government level.

Health System Infrastructure: Implementing simplified approaches in some ways helps address ongoing challenges within the health system, but the real impact of simplifications on the different levels of often fragile health systems remains to be measured. Human resource capacity to implement simplifications was a concern as was resource allocation, material development and trainings. Ongoing challenges within the health system also should be taken into consideration when shifting to simplified approaches and include frequent turnover of human resources, distance and access to health services and CMAM services not entirely integrated into the health system and/or health information systems.

Coverage, Continuum of Care and Quality Assurance: The most notable impact on coverage, continuum of care and quality assurance was the COVID-19 pandemic. This involved movement restrictions, high default rates due to fear of going to health facilities, and restricted field missions resulting in limited ability to monitor newly implemented simplified approaches, including supervision and on the job coaching. Challenges with ensuring continuity among all implementing partners was often mentioned, such as inconsistency in how the approach is implemented by various partners within the country, using different tools and collecting different data. Complexity of guidance for simplified approaches and the time it takes to refine traditional guidance and ensure implementers with varying levels of education and literacy have a solid understanding of the simplification at service delivery points was also noted. Transfer of CMAM staff to COVID-19 response initiatives led to reduced human resource availability for routine services in some countries. Additionally, lower quality of family MUAC was often mentioned as well as concern of exclusion of children using MUAC only admissions.

Data Collection and Documentation: The most cited challenge, data collection and documentation require the most support in the region. As there are many pre-existing challenges with data collection with CMAM services before simplification, strong consideration should be given to the below mentioned challenges:

- Financial cost of documentation and data collection
- Availability of data collection tools for new approaches
- Lack of guidance on how to collect or merge data for simplified approaches without changing the existing reporting system
- Ensuring accuracy and timeliness of data collected and how to monitor with movement restrictions
- Major gaps in data collection at community level including CHW treatment and Family MUAC
- Parallel data collection systems for simplified approaches
- Bottlenecks with information flow and feedback
- Poor quality data entry leading to inaccuracies (often due to education and literacy level of those recording the data)
- Emergency contexts make data collection, documentation and reporting extra challenging

2. REGIONAL THEMES AND LESSONS LEARNED FOR EACH SIMPLIFIED APPROACH

This section details each simplified approach implemented in the thirteen selected countries for the landscape analysis. Each sub section starts with a definition of the approach, following summarized details of implementation and ending with a table outlining the details for each country implementing the approach. Note that few simplifications have been implemented at scale or fully integrated into the health system.

2.1 Family MUAC

Description: Family MUAC is an approach that equips caregivers, through training and provision of MUAC tapes, to detect acute malnutrition in their own children at the household level by measuring MUAC and edema themselves in order to improve early case identification and referral for treatment[7].

Family MUAC is the most implemented simplified approach in the Eastern and Southern Africa Region with 92% of countries reporting using this approach in some capacity. Government buy-in for this approach is high as it's viewed as a way to improve coverage of screening for acute malnutrition. Research shows that caregivers can accurately measure MUAC though the cost-effectiveness of this approach is not well documented[7]. Modalities of implementation vary depending on the context with a majority of countries using existing community structures to provide training, coaching and oversite at community level. Some countries implement Family MUAC through care groups or mother support groups and others train caregivers at health facility level. Kenya and Angola reported earlier detection of wasting with the implementation of this approach shown by an increase in MAM caseloads and corresponding admissions. Mozambique reported that there were lower referrals of MAM cases compared to SAM cases, indicating that caregivers placed more urgency or importance on SAM than MAM. Accuracy of measurements and modalities to refer children are improved with frequent on the job coaching or supervision visits. A central focal point in the catchment area linked to the health facility that oversees this activity has resulted in improved accuracy in measurement taking and reporting. Community messaging is important to ensure the population understands why mothers are taking MUAC and not to negate work that was previously thought of as only for community health workers.

> *"(There is a) Need to build in a dialogue about how tasks are shifting between CHW's and family members to articulate the new role of the CHW's and be clear on the language…. approach the whole thing as behavioral change, a habit." - Concern Worldwide, KII*

Integrating IYCF messaging with Family MUAC has positive results with families showing an improved understanding of nutrition and encouraging families to keep their children in the 'green'.

> *"Family MUAC will continue. Seeing good results, mothers and caretakers are really engaged and understand malnutrition better." - Angola, KII*

Ensuring quality training is challenging, especially with the cascade method of training and COVID-19 related movement restrictions which created difficulties in coaching and supervision. Another challenge is continually ensuring training of new cohorts of mothers. Reports of losing MUAC tapes were also noted, though to mitigate this, care of MUAC tapes can be included in the training package. Promoting this approach as a household behavior change helps with uptake at household level and a phased approach to training and capacity

[1] STATE OF THE EVIDENCE 2021: Modifications Aiming to Optimize Acute Malnutrition Management in Children under Five. Action Against Hunger, May 2021

building, such as initiating the approach with frequent coaching and gradually phasing it out based on competence could help ensure capacity building leads to independence in the caregiver. Documentation of this approach was an oft mentioned challenge and a standardized monitoring and documentation package to verify and report on measurements and link families to health facilities is needed. Countries using digital reporting systems, such as KoboToolbox or RapidPro reported improved data collection and analysis.

"Village health workers are not literate, the rapid pro was easy. SMS based, receive SMS that has a question, they answer the question with a number. Number of children screened, number of children in yellow vs red. Easy, they didn't need a smart phone, they just went through SMS." - Zimbabwe KII

Other countries collected screening data though it was not possible to segregate referrals from family MUAC or CHW.

"The gap now with implementation and scaling up is the follow up bit of whether the mother goes the distance if the child is red or yellow and they take action. CHW's need to regularly follow up with the mother. In terms of monitoring, it needs to be tightened up." - Kenya KII

The noted increase in coverage of this approach, though hard to actually measure, is overall positive though can result in some operational challenges as an increase in caseload, especially MAM caseloads can strain the health system and result in increased costs of therapeutic foods for treatment of wasting. Modalities on how to ensure linkages and referrals of families to treatment services also remains a gap.

Key Points on Family MUAC:

- Determine the best modality to continually train new cohorts of mothers
- Consider including care of MUAC tape/ losing MUAC tape/Replacement MUAC tapes in budgets and trainings
- Ensure capacity of health system to manage increased caseloads, especially MAM caseloads
- Determine modalities for linking families to health facilities reinforcing referral mechanisms
- Development of an effective monitoring and documentation package to verify and report on measurements and link families to health facilities
- Consider a phased approach for capacity building initiating the approach with frequent coaching then gradually phasing out based on competence
- Look at this approach as a household behavior change to help with uptake at household level and plan mass communications accordingly
- Include IYCF messaging within family MUAC to promote optimal behavior and ensure that there is conceptual/emotional incentive to keep the children in green

TABLE 4 Countries Implementing Family MUAC

FAMILY MUAC						
Country	**Implementing Partners**	**Context of Implementation**	**Geographic Area of Implementation**	**Data Collection and Documentation**	**Integration with health system**	**Plans to scale up**
Angola	Municipal and provincial health Directorates, National Public Health Directorate, CSOs	COVID-19 Response	4 Provinces (Cunene, Huíla, Bié and Luanda) – periurban and rural	Through the health system: Monthly MoH admin data, use of Kobo collect (ODK) for reporting	Yes	Yes
Comoros	MOH	COVID-19 Response	3 islands	Collected via kobo toolbox through nutrition focal points at each health facility	Integrated into the health system	Yes
Ethiopia	MoH, UN agencies and INGO'S	Pilot/Evidence generation exercise	Representative woredas from different contexts will be selected	Pilot: Parallel and from the selected research sites additionally we will have research data	Yes	Yes
Kenya	MOH, INGO Partners (Kenya Red Cross Society, Save the children, Concern worldwide, Action against Hunger)	COVID-19 Response	Arid and Semi-Arid counties of Isiolo, Tana River, Turkana, Marsabit and Urban informal settlements of Nairobi	Parallel data collection: Monthly reports by CHVs through the community health extension workers	Yes though not yet in national level budgets	Yes
Madagascar	Ministry of Health and National Nutrition Office	Emergency Response	Ten southern districts where acute malnutrition is most prevalent and above emergency levels	No routine data collected, but an evaluation was completed	Yes	Yes
Malawi	Ministry of Health (MoH), LUANAR, SWET	Pilot/evidence generation -COVID-19 Scale up	Dowa, Lilongwe, Blantyre, Phalombe, Nsanje, Mzimba, Nkhata-bay, Dedza, Mangochi, Mwanza	Parallel data collection, planning operational research	Integrated into the iCCM on a phased approach	Yes
Mozambique	MOH and NGO (under discussion)	Pilot/evidence generation	under discussion	pilot	Coordination of pilot with national level	Yes
Somalia	All UNICEF implementing partners	Emergency Response accelerated by COVID-19	All regions in Somalia/ Somaliland	Monthly partner reporting through ONA, DHIS, quarterly partners reports, Third Party Monitoring reports, Regular UNICEF staff, MOH monitoring reports	as much as possible	Implemented nationally

FAMILY MUAC						
Country	Implementing Partners	**Context of** Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
South Africa	National Department of Health, Gauteng and Kwazulu Natal Provincial Departments of Health, Centre for Rural Health – University of KZN	Pilot/evidence generation to increase coverage	Piloted in Kwazulu Natal Province [Zululand and Umzinyathi Districts] and Gauteng Province [City of Johannesburg and Tshwane Districts]	Pilot with a focus on capacitating CHW to collect data	Pilot not integrated with health system	yes
South Sudan	38 IP +govt partner	COVID-19 Response	National	Collected manually through monthly reports	Embedded in routine programming	yes
Uganda	government and partners	Increase coverage and COVID-19-activation/scale up	Implementation pending	Will be reported on through health facilities but won't be able to distinguish screening data from mothers vs. other	yes	yes
Zimbabwe	MoHCC	Emergency Response/ COVID 19 scale up	38 emergency districts	Routine reporting system and RapidPro emergency reporting system	Integrated into emergency response and included in national plans and budgets	yes

2.2 MUAC Only Admissions

Description: Under standard protocol, three criteria—weight-for-height Z-scores (WHZ), mid-upper arm circumference (MUAC), and edema—are used to determine admission to and discharge from acute malnutrition treatment services. The most common modification is using only MUAC and edema as admission and discharge criteria to simplify and streamline the admission process for treatment programs. It is recommended that use of a MUAC- and edema-only approach in an OTP should also include expanding the admission criteria to include both SAM and MAM in one joint OTP/ TSFP service[7]. In the eastern and southern Africa Region, MUAC only admissions is mostly implemented as an add-on to other simplifications such as CHW treatment, in emergency areas or to follow reduced touch COVID-19 restrictions. No country in the region is implementing MUAC Only Admissions at National level. At clinic level, WHZ is still widely used as admission criteria.

MUAC Only Admissions is implemented as an add on to CHW treatment or in emergency zones in 62% of countries included in this analysis in the Eastern and Southern Africa Region. This is one of the most controversial simplified approaches with hesitancy reported from governments and partners due to the fear that certain children who are wasted will be excluded if weight-for-height measurements are not taken. Existing research indicates MUAC better identifies children at highest risk of near-term morality than WHZ in both clinic and outpatient settings though long-standing debate continues as some evidence is presented that promotes continued use of WHZ[7]. In Somalia, partners are advocating to end this approach due to exclusion of children. Research on MUAC

vs. WFH overlap was presented in the region by Michael Golden and frequently cited by countries as a deciding factor in the use of this approach[1].

"The MOH agreed to use MUAC only after UNICEF released the analysis that showed that >95% of cases will be captured by MUAC only. And in the community, they are treating MAM and SAM so the children at highest risk will not be missed, this evidence really helped advocate for this, it was helpful." - Mozambique KII

Many countries reported that MUAC only admissions work well as a complementary approach to other simplifications. These include CHW treatment and reduced (or MUAC based) dosage of RUTF. Using MUAC only admissions combined with these approaches supports the simplification and doesn't require taking weight to dose RUTF, which requires a higher skill level and can negate the initial MUAC only simplification, depending on the context of implementation.

"A challenge was the complexity of the protocol and one recommendation for scale up was to simplify the admissions criteria. MUAC only admission and discharge was approved, though dosage is based on weight, SAM children will be measured for weight to calculate the dose of RUTF."
- Mozambique KII

This approach requires more advocacy and research including exploring MUAC cut off points or other methods to detect wasting.

Key points on MUAC Only Admissions

- Consider integrating this approach with other simplifications such as CHW treatment of reduced dose of RUTF
- Development of strong advocacy points to support this approach moving forward
- Explore other methods to detect wasting or additional research on MUAC cut off points to avoid exclusion of children.

TABLE 5 Countries Implementing MUAC Only Admissions

MUAC Only Admission						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Comoros	Government	COVID Response -Still take weight for height at HF	3 islands	Through the health system	Yes	Yes
Ethiopia	Government (MoH & NDRMC) UN agencies (UNICEF & WFP)	Pilot/Evidence Generation	Targeted 100 woredas but the phase one will be in 61 woredas. In six regions of the country four agrarian (Oromin, Amhara, SNNPR and Tigray) Somali and Afar	Evidence generation exercise for future large scale implementation of integration to transit the Program from NDRMC & WFP to Health extension programme. To ensure continuum of care	Policy change depends on evidence generated	Pilot-pending results

[1] Emmanuel Grellety and Michael H. Golden. Severely malnourished children with a low weight-for-height have a higher mortality than those with a low mid-upper-arm-circumference: Effect of case-load on malnutrition related mortality– policy implications. Nutr J. 2018; 17: 81.

MUAC Only Admission						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Madagascar	Ministry of Health, National Nutrition Office (ONN); NGOs, WFP	Emergency Response Admissions based on MUAC only at Community Nutrition Site level for MAM management; MSF-F implementing MUAC only admissions in their area of intervention (MAM and SAM management)	MAM management: Southern districts and 6 regions part of the PARN project MSF-F: 15 communities in 2 Southern districts	Pilot -MAM management: National Nutrition Office (ONN) MSF-F	MAM management is not under the MOH but under the National Nutrition Office (ONN) MSF-F works independently	Yes
Malawi	MOH	Pilot/Evidence Generation (ICCM+Nut will be MUAC only)	Mzimba, NkhataBay, Lilongwe, Dedza, Mangochi, Nsanje	Pilot Data collection not yet started	Integrated into planning but not budget	Yes-pending pilot results
Mozambique	Government	Pilot / evidence generation	17 communities	through health system (but through a parallel database because it is not yet included in the national health information system)- Implementation research in planning stage	Integrated into CMAM service Delivery	Pilot/yes
Somalia	All UNICEF Nutrition Partners in Somalia/ Somaliland	Emergency Response	All the regions in Somalia/ Somaliland as a means of implementing the COVID-19 programme modification	Partner reports through ONA, DHIS, quarterly partners reports, Third Party Monitoring reports, Regular UNICEF staff, MOH monitoring reports	Not in budgets	At scale-partners advocating to end due to exclusion of children
South Sudan	38 IP's	COVID-19 Response	Entire Country	IPs report directly on NIS	Embedded in routine programming	Yes
Uganda	MOH	COVID-19 Response	Areas with limited COVID-19 protection mechanisms are in place	Through the health system	Yes	No-COVID-19 adaptation only

2.3 CHW Treatment

Description: This approach shifts most or all components– including detection, admission, administration of medication and foods, follow-up visits, and discharge – of treatment for children with acute malnutrition (without medical complications) from a clinic/facility-based setting to a community-setting and is implemented by trained community health workers (CHWs). Most often, this CHW-led treatment of acute malnutrition approach is embedded within an Integrated Community Case Management (ICCM) program, often referred to as "ICCM+Nut" or "iCCM+SAM." 7

Community Health Worker treatment of wasting is implemented in 46% of countries included in this analysis in the Eastern and Southern Africa Region. Research to date indicates that outcomes of CHW treatment of acute malnutrition are non-inferior to facility-based outpatient treatment, with improvements in default rates and program coverage7.

Due to the complexity of most national CMAM guidelines, complementary simplifications are often necessary due to lower literacy and education levels of some community health workers. This includes implementing this approach with MUAC only admission and reduced dosage/MUAC based dosage of RUTF. There is some hesitancy around this approach in the region due to already high workloads and low incentives of CHWs. Development of job descriptions for CHWs coupled with community messaging to ensure CHWs are viewed as competent health professionals facilitates this approach. Exploring alternative incentive modalities, such as savings and loan schemes when government budgets can't support financial payment of CHWs, could have potential positive outcomes. Integration of this approach into existing community strategies or ICCM protocols requires policy level change and additional training and capacity building. A review of lessons learned from ICCM globally and applying those to ICCM+nut could be helpful to determine if ICCM should exist first and at what minimum threshold.

"This approach is quite useful but the transition from the controlled research environment to the regular programming environment requires a level of investment in terms of monitoring and technical expertise, how to operationalize within the health system to see how it works." - Kenya KII

Including CHW treatment of wasting in existing ICCM protocols also requires a lengthened training, a practicality which is important to consider. Other challenges outside of the research environment with this approach include difficulties streamlining the reporting structure within the health system and the management of supplies at community level.

Key Points on CHW Treatment:

- Consider workload and incentives for CHW's and how to ensure this approach is efficient in terms of time
- Operational research is needed on implementing this approach within the health system and existing community and ICCM structures
- More research on cost-effectiveness, long-term quality of care, and optimal training modalities
- Positive results of this approach were seen when implemented with other simplifications such as MUAC only admissions and reduced dose of RUTF

TABLE 6 Countries Implementing CHW treatment of Wasting

CHW Treatment						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Angola	WFP Funded	Planning stage	Planning stage	Planning stage	Planning stage	Maybe
Ethiopia	MOH	Improve Coverage	Nationally in 70% of health posts	Through national health system	Yes	Yes
Kenya	IRC, MOH	Pilot/evidence generation	Turkana and Isolio	Operational research not yet started, Pilot was parallel data collection	No	No-Pilot
Malawi	Ministry of Health (MOH)	Pilot/Evidance Generation	Mzimba, NkhataBay, Lilongwe, Dedza, Mangochi, Nsanje	Pilot-Data collection not yet started	Integrated into Government CMAM service delivery	Yes-pending pilot results
Mozambique	Government	Pilot/Evidence Generation	32 communities in 3 Provinces	Through health system (but through a parallel database because it is not yet included in the national health information system)- Planning implementation research	Yes	Yes
South Sudan	38 IP's	Emergency Response	Nationally	IPs report directly on NIS	Integrated into CMAM service delivery	Yes

Modified Dosage of Therapeutic Foods

Description: For SAM treatment, current global standards call for therapeutic food dosage to be calculated based on a child's weight. A modified dosage approach based on the ComPAS trial is the most common simplification in the East and Southern Africa Region which includes a standardized daily dose of RUTF based on MUAC status[9]. Table 4 illustrates the difference between the standard and modified dosage from the ComPAS trials.

TABLE 7 Modified Dosage as per comPAS protocol

	Combined Protocol	Standard Protocol (OTP + SFP)
Admission	<125mm MUAC and/or bipedal oedema (+/++)	<125mm MUAC and/or <-2 z-score (WHZ) and/or bipedal oedema (+/++)
Dosage	<115mm and/or oedema (+/++): 2 RUTF/day (1000 kcal) 115-<125mm: 2 RUTF/day(500 kcal/day)	SAM: 200 kcal/kg/day RUTF MAM: 500 kcal/day RUSF
Cured	≥125mm for 2 consecutive weekly measurements and no oedema	≥125mm for 2 consecutive weekly measurements and no oedema

[9] The Combined Protocol for Acute Malnutrition Study (ComPAS) dosing regimen consisted of 2 sachets of RUTF/day if their MUAC was <115mm, and 1 sachet of RUTF/ day if their MUAC was 115mm to <125mm.

Modified Dosage of therapeutic foods for treatment of wasting is implemented in 62% of countries included in this analysis in the Eastern and Southern Africa Region. Research to date has indicated that this approach is effective and overall recovery rates are non-inferior to using weight-based dosage[7]. Interest in this approach is stemmed from the potential cost savings on therapeutic foods resulting in the ability to treat more children with a lower cost burden. Anxieties around the actual impact of this approach on supply pipelines and cost of therapeutic foods result in some hesitancy.

"Even though the protocol becomes simple in terms of operationalization, two sachets for SAM and one for MAM, need to understand what would be the implication on the pipeline? Will it overwhelm the pipeline?... Need support in modeling and scenarios." - Ethiopia KII

There is also interest in gathering more evidence on using a reduced dose of RUTF to treat just SAM and the corresponding implications on supply pipeline and potential cost savings. Phrasing is also something to consider when advocating for this approach. Using the phrase "MUAC-based" dosage vs "simplified or reduced" dosage demonstrates that this dosage is evidence-based as indicated in the ComPAS trials.

Key Points on Modified Dosage of Therapeutic Foods:

- More evidence is required regarding potential cost savings using this approach
- Consider phrasing when using this approach "MUAC based" dosage evidenced by research and not just a reduced or simplified dose

TABLE 8 Countries Implementing Modified Dosage

Modified Dosage						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Angola	Municipal and provincial health Directorates, National Public Health Directorate, NGOs	COVID-19 Response	6 Provinces (Cunene, Huíla, Bié, Luanda, Namibe and Cuando Cubango) – periurban and rural	Will use national health system reporting and Kobo collect (ODK) for reporting	Yes	Maybe
Eritrea	MoH	COVID-19 Response that is scaling up nationally	all regions	Yet to be implemented but will use national health system reporting	yes	will be implemented at scale
Ethiopia	Government (MoH & NDRMC) UN agencies (UNICEF & WFP)	Evidence Generation/ Pilot (SAM only not MAM)	Targeted 100 woredas but the phase one will be in 61 woredas. In six regions of the country four agrarian (Oromin, Amhara, SNNPR and Tigray) Somali and Afar	Parallel and from the selected research sites additionally we will have research data	Pilot policy change depends on evidence generation	Depends on evidence
Madagascar	MSF prime	Emergency nutrition response	15 communities in 2 Southern districts	MSF	No	No

Modified Dosage						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Mozambique	discussion phase	Pilot under discussion	Cabo Delgado Province (number of communities still to be defined)	under discussion	under discussion	Pilot
Somalia	National & International NGOs; Mercy USA, KAAH, BTSC, GRRN, WASDA, HDC, SRC, URRO	Emergency response in hard to reach locations where WFP does not implement TSFP	Regions: Gedo, Lower Juba, Bay, Galgaduud, Hiraan, Bakool	Monthly partner reporting through ONA, DHIS, quarterly partners reports, Third Party Monitoring reports, Regular UNICEF staff, MOH monitoring reports	Training materials and operational guidance developed but not in budget	No plans to scale up; discussions not taken place around whether this initiative will be scaled up
South Sudan	Based on need and emergency context	emergency response	based on need and emergency context	Through traditional CMAM reporting systems	included in the rapid response mechanism	no emergency context only
Zimbabwe	MoHCC	Emergency Response	Nationally in 63 districts	Through health system, parallel (RapidPro)	yes for emergency response	Yes due to continued emergency

2.4 Single product to treatment

Description: Treating of all wasted children without complications, whether SAM or MAM with the same product, RUTF. Current treatment models propose two different but very similar products to treat SAM and MAM. The procurement and supply of two different products may be inefficient in terms of cost and timeliness, particularly in contexts of high insecurity where access is restricted. Dual procurement is not efficient even in contexts where UN agencies are responsible for the procurement of these products. But as efforts to integrate RUFs into national supply chain systems increase, the need to procure two products can hinder these integration efforts

Single Product for treatment of wasting is implemented in 46% of countries included in this analysis in the Eastern and Southern Africa Region. This approach, often coupled with modified dosage, has been shown to have non-inferior recovery outcomes when compared to traditional protocols for the treatment of SAM and MAM with some studies suggesting the approach is cost effective and may enable earlier treatment of acute malnutrition[7]. The main impetus for implementing this approach is to mitigate operational challenges during emergency scenarios, such as lack of services to treat MAM. Countries like Zimbabwe, Somalia and South Sudan have used this approach as part of their national emergency protocols for the past few years alternating between emergency protocols and transitioning back to the traditional CMAM protocol when emergency situations normalize.

The use of one product, RUTF for treatment of SAM and MAM is turned on and turned off. During the Cyclone in 2018 we did not have RUSF, so used RUTF for treatment of MAM in the cyclone districts. After that it subsided, we stopped using RUTF for MAM. Do in emergencies, then stop doing it. Guidelines are developed around this. They are simple guidelines, no real need for calculations. - Zimbabwe

Similar to reduced dosage, there are anxieties regarding caseloads and supply of therapeutic foods with this approach, specifically with cost and transport. Questions around how to manage the high MAM burden are ever present and a discussion on how to manage MAM burden or simplify MAM treatment, such as cost-effective alternatives to supplementary products to treat MAM or prioritizing younger children, those with concurrent illnesses and other aggravating factors, those living in IPC phase4/5 areas, emergencies etc. is necessary. Single Product to treatment, outside of emergency or exceptional circumstances, also requires consensus among stakeholders.

"The emergency in Tigray is an opportunity to accelerate the implementation of simplified approaches. Developed a paper to guide the response in the Tigray context using one product for SAM and MAM- haven't started it as an agreement between UNICEF, MOH and WFP was not reached." – Ethiopia KII

In addition to cost effectiveness, more evidence is needed to determine if this approach helps to reduce the workload of health facility staff. Changes to national guidelines and protocols also requires changes to existing reporting structures within the health system, which is a large undertaking. As with all simplified approaches, determining how to report on the approach without changing existing reporting processes needs to be considered.

"Tried to focus on a couple of materials without changing the basic reporting system…don't want to engage on the whole system level change. Will be maintaining the same reporting system but have simplified tools for reporting that have been developed and new stock monitoring and reporting tools." - Eritrea KII

Key Points on Single Product to Treatment

- Currently used mostly as an emergency adaptation to mitigate operational challenges
- Consider MAM burden and advocate for research on cost and workload savings using this approach
- Develop planning and costing scenarios for using a single product and reduced dosing for SAM and MAM to estimate how many children could be expected to be covered including scenarios prioritizing children who are most at risk for mortality.
- Strengthen coordination with partners to come to consensus on better defining or determining the contexts in which this approach should be implemented

TABLE 9 Countries Implementing Single Product to Treatment

Single Product to Treatment						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Angola	Municipal and provincial health Directorates, National Public Health Directorate, NGOs	COVID-19 Response	6 Provinces (Cunene, Huíla, Bié, Luanda, Namibe and Cuando Cubango) – periurban and rural	Through the health system- Monthly MoH admin data, use of Kobo collect (ODK) for reporting	Yes	Maybe
Eritrea	MoH	COVID-19 Response that is scaling up nationally	All regions	Yet to be implemented but will use national health system reporting	Yes	Will be implemented at scale
Kenya	Discussions in infancy					
Somalia	National & International NGOs; Mercy USA, KAAH, BTSC, GRRN, WASDA, HDC, SRC, URRO	Emergency response in hard to reach locations where WFP does not implement TSFP	Regions: Gedo, Lower Juba, Bay, Galgaduud, Hiraan, Bakool	Monthly partner reporting through ONA, DHIS, quarterly partners reports, Third Party Monitoring reports, Regular UNICEF staff, MOH monitoring reports	Training materials and operational guidance developed but not in budget	No plans to scale up; discussions not taken place around whether this initiative will be scaled up
South Sudan	Based on need and emergency context	Emergency response	Based on need and emergency context	Through traditional CMAM reporting systems	Included in the rapid response mechanism	No emergency context only
Zimbabwe	MoHCC	Emergency Response	Nationally in 63 districts	Routine reporting system and RapidPro emergency reporting system	Yes for emergency response	Yes due to continued emergency

2.5 Reduced Frequency of Health Facility Visits

Description: An approach that reduces the frequency of the time between follow-up visits in which a caregiver brings their child back to the clinic for assessment and receipt of therapeutic/ supplementary foods when enrolled in a CMAM program[7]. In this approach, visits for SAM children without medical complications often shift from weekly to every 14 days or monthly; visits for MAM children shift from every two weeks to monthly.

Reduced frequency of follow-up visits to health facilities for treatment of wasting is implemented in 46% of countries included in this analysis in the Eastern and Southern Africa Region. Global evidence on this approach is limited but smaller studies suggest adequate weight and MUAC gain[7]. Countries implementing this approach report that it is useful during movement restrictions or in areas where access to health facilities is limited. Multiple countries

implemented this at the onset of the COVID-19 pandemic to respect movement restrictions and to prevent overcrowding at health facilities. Reduced frequency of follow-up visits also eases the workload of caregivers who have to go long distances to health facilities. Countries reported little interest in scaling up this approach preferring to return to standard follow up visits as situations normalize. Over the course of implementation, there were some cases of stock shortages due to increased output of therapeutic foods, though they were quickly resolved. Messaging to caregivers on how to manage a larger supply of RUTF is recommended to avoid misuse.

Key Points on Reduced Frequency of health facility visits

- Useful approach during movement restrictions or in areas where access to health facilities is limited
- COVID-19 or emergency response adaptation only, there is limited interest and outcome evidence for scaling up this approach in the ESAR
- Further research is needed on impacts of reduced frequency of visits in comparison with most commonly practiced frequency of follow-up visits on program outcomes, adherence and household use of RUTF, and cost-effectiveness.

TABLE 10 Countries implementing Reduced Frequency of Visits to Health Facilities

	Reduced Visit					
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Angola	Municipal and provincial health Directorates, National Public Health Directorate, CSOs	COVID-19 Response	6 Provinces (Cunene, Huíla, Bié, Luanda, Namibe and Cuando Cubango) – periurban and rural	Through the health system Monthly MoH admin data	Yes	No
Comoros	MoH	COVID-19 Response	3 islands	Not collecting	Yes	Yes - addresses challenges with accessability
Madagascar	Ministry of Health, National Nutrition Office (ONN); NGOs, WFP	COVID-19 Response	All areas where there is CMAM	Not collecting	Yes	No
Malawi	All CMAM partners	COVID-19 Response	Nationally	Not collecting	Yes	Yes, but only due to Covid, will return to traditional protocol
Somalia	All UNICEF implementing partners	Emergency Response/Covid Activation	All the regions in Somalia/ Somaliland as a means of implementing the COVID-19 programme modification	Not collecting	As much as possible	At scale
Uganda	MoH and partners	COVID-19 response	Where communities are not able to access services due to COVID 19	Not collecting	n/a	No

Reduced Visit						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
Zimbabwe	MoHCC	Emergency Response/ COVID-19 Scale up	63 districts	Not collecting	part of emergency response protocols	yes due to emergency

2.6 Expanded Admission Criteria

Description: Expanded admissions criteria (EAC), an approach used in emergency contexts to treat all AM children in one program when either OTP or TSFP services or supplies are unavailable, usually using MUAC- and edema-only admission and discharge criteria[7]. This includes shifting the OTP admission threshold from MUAC<11.5cm to MUAC<12.5cm in the absence of a TSFP.

Expanded admission criteria is the least implemented approach in the Eastern and Southern Africa Region and is only implemented in one or 8% of countries. It is most often implemented as an emergency response due to operational challenges and stopped once the emergency abates. Global evidence to date indicates that EAC protocols are non-inferior to standard protocols and may enable earlier treatment of acute malnutrition[7].

Key Points on Expanded Criteria

- Least frequently implemented approach
- Effective during emergency contexts when indicated due to operational challenges
- More research on benefits vs. constraints and optimal admission and discharge thresholds in various contexts

TABLE 11 Countries Implementing Expanded Admission Criteria

Expanded Admission Criteria						
Country	Implementing Partners	Context of Implementation	Geographic Area of Implementation	Data Collection and Documentation	Integration with health system	Plans to scale up
South Sudan	Implemented in exceptional circumstances/Emergencies, not frequently used and not documented					

3. DISCUSSION: EMERGING THEMES AND GAPS

The desk review and key informant interviews revealed a high level of convergence among the countries included in this landscape analysis. Many key issues related to simplified approaches were raised in previous sections of this report, as such, this section focuses on understanding gaps, emerging themes and the overall impression of simplified approaches in the region followed by conclusions and recommendations.

> *"COVID brought us all together, let's see what we can do, how can we take advantage and build on this." - World Health Organization KII*

There are two primary reasons identified in the region that instigate implementation of simplified approaches. These include implementation as a pilot/research project or in emergencies to mitigate operational challenges, such as insecurity, shortages of therapeutic foods or low coverage of MAM services. Translating simplified approaches from these environments to an operational or health system context poses a challenge in the region. The research environment is controlled and includes strong capacity building and reporting structures whereas emergencies require rapid rollout of life saving interventions, often overlooking documentation and capacity building. Determining how to implement these approaches along the spectrum from emergency response to recovery and 'normal' phases and understanding how to weave innovations into already existing systems without undermining its capacity is a key factor in assessing scale up readiness of these approaches. Many countries have simplified approaches included in their emergency response protocols and alternate between these protocols and traditional protocols depending on the context. More fragile countries tend to have more impetus to implement these approaches on a wider scale, such as South Sudan and Somalia. Maturing simplified approaches to scale involves bridging the gap between research or emergency contexts into a health system focused context which can require changes to the health system including existing protocols and guidelines, reporting structures and capacity building. Advocating for these approaches with governments takes time and often, home grown evidence, before research is ready for integration into the health system. Defining a package of evidence-based simplifications for the treatment of wasting as an entry point to transition between emergency and development contexts would help facilitate mainstreaming of these approaches within the health system.

Guidance on how to collect or merge data collection with existing health information systems for simplified approaches is another key area that requires attention. Defining a structure for documentation of data and lessons learned for each approach will help facilitate documentation of learning outside of a research environment and support countries who are interested in scaling up but struggling to operationalize these approaches.

Capacity building was another theme that emerged in the region. Translation of research and pilot studies to operational environments is facilitated by the increase in capacity at national level, both with materials and human resources from pilot studies. Countries reported feeling more prepared with materials and human resource capacity after pilot studies were conducted. Strategy and guidance notes on simplified approaches are often developed with government and nutrition coordinating bodies. Developing trainings and tools based on new guidance was identified as a challenge. Developing a set of generic training and supervision materials and tools for each approach that can be adapted to context at country level would ensure strong technical capacity during scaling up of these approaches.

Of the simplified approaches that were reviewed in this landscape analysis, some are more ready to scale and transition to program implementation than others. Two approaches that are maturing that require the least amount of changes to the health system to scale are family MUAC and reduced frequency of follow-up visits.

- **Family MUAC** has the most traction in the region as it has the potential to facilitate identification of wasted cases and increase screening coverage. Countries implementing family MUAC have developed guidance notes or strategies for implementation using resources from other countries and from regional offices. The gap herein lies in the implementation of these strategies including training, coaching, reporting and referral. Defining a structure for documentation and reporting practices, strengthening referrals from household level and assessing the impact of increased coverage on the health system are important to keep in mind when planning to scale this approach. Gathering evidence to determine the cost-effectiveness of family MUAC to increase coverage and the impact on the health system should be considered.

- **Reduced frequency of follow-up visits** to address distance, access to services and burden on caregivers in going to the health facility can be scaled without implementing major changes to the health system or existing CMAM protocols. This approach hasn't generated much interest in the region in terms of transitioning this approach to routine programming as it is mostly viewed as an emergency adaptation. More evidence on treatment outcomes and management of therapeutic foods at household level with this approach may strengthen interest in scaling up.

The four other approaches with the most interest in the region include CHW treatment, MUAC only admissions, modified dosage and single product to treatment. CHW treatment is mostly implemented in a research/pilot environment and the remaining approaches are mostly emergency adaptations. Though these approaches have gained traction, more evidence generation is required for buy in or policy change before scaling up.

- **CHW treatment of malnutrition at community level** has gained interest in the region as the approach helps increase coverage and access to services. This approach is not yet ready to scale as it needs to mature and requires more evidence to address challenges identified, specifically regarding integration into the health system. The changes to national protocols and guidelines this approach necessitates and the development of resources, such as simplified tools, capacity building and supply management at community level is a main hindrance to scaling this approach beyond the pilot environment. This approach works well in combination with other simplifications, such as MUAC only admissions and modified dosage of therapeutic foods, which adds a layer to existing reporting and supply management structures. Additionally, some countries expressed concern that treatment of malnutrition, especially of SAM, is medicalized and CHWs aren't trained to practice medical judgement. More evidence on efficacy with both time and cost as well as clearly defined strategies and tools for implementation are required.

- **Using MUAC as a single admissions criterion** is one of the more controversial approaches in the region. This approach raises fears around exclusion of children and is a bottleneck that needs to be addressed for this approach to be fully accepted or ready to scale. There are some innovations with research in infancy on alternative ways to identify wasted children including:
    - Photographic identification of SAM to help bridge the gap between MUAC and WFH
    - Weight for age as admissions criteria
    - Review of non-anthropometric risk factors (social markers, presence of other health related risk factors, etc.) for MAM and how to reduce MAM burden

- **The remaining approaches including modified dosage and single product to treatment**, both involve changes to the health system structure, existing national guidelines as well as more buy-in outside of emergency contexts to be ready to scale. These simplifications generate a lot of interest, but changes to existing structures within the health system, prevents scale up outside of exceptional circumstances. Clarity is still needed on the real benefit of these approaches in an operational environment. Research has shown that modified dosage and treatment with a single product can lead to positive outcomes in terms of recovery for children, but questions on whether the implementation of these approaches save time and money remain. Though these approaches offer clear solutions to ongoing challenges with CMAM service delivery, outside of emergency contexts, evidence is still lacking in determining the impact of implementing these approaches at scale on the health system specifically with cost and time savings.

4. RECOMMENDATIONS

Overall, evidence gathered during the landscape analysis points to five main priority areas.

1. Defining what simplified approaches are most effective and ready for scale up
2. Transitioning simplified approaches from pilot or emergency contexts to health system contexts
3. Strengthening data collection and documentation, establishing reporting systems for simplifications and defining a structure for countries to document lessons learned
4. Supporting training and capacity development initiatives for simplified approaches in the region
5. Continued research on remaining questions and gaps

Directing partners and health ministries who conduct research to answer outstanding questions as identified in this landscape analysis will also help support maturing of these approaches leading to scaling up and transition to program level implementation. More specific recommendations are detailed in Table 6 below.

Research questions to consider:

- What are the cost implications for each of each simplified approach?
  - If an approach is shown to reduce cost, what is the cost savings (i.e. a country will have 20% savings on therapeutic foods after this approach has been implemented for 6 months)
  - Including cost analysis for each approach and multiple approaches implemented together.
- Are there savings in terms of workload at health facility and community level? Are these approaches efficient?
- For community-based interventions, such as Family MUAC and CHW treatment, what minimum level of existing community structures should be in place?
- Research on effect of expanded admissions criteria, Family MUAC and CHW treatment on coverage.
  - Do these approaches increase coverage?
  - Does treatment of MAM displace treatment of SAM?
- Research on using a single product and reduced dosing for SAM and MAM
- Estimate how many children could be expected to be covered when the children most at risk of mortality (both SAM and MAM) are prioritized for RUTF, e.g. younger children, those with concurrent illnesses and other aggravating factors, those living in IPC phase4/5 areas, emergencies etc.

TABLE 6 Recommendations for Simplified Approaches in the East and Southern Africa Region

Capacity Development	Development of trainings and materials based on new guidance notes and SOP's
	Regional level webinars and technical discussions
	Online or virtual training development
	Best modalities to train, monitor and ensure quality when movements or access is restricted
	Ensuring continuity among all partners in implementation
Resource Mobilization	Funding for evidence generation and documentation
	How to absorb costs as coverage increases and caseloads go up specifically with therapeutic foods
Data and Documentation	Review of existing nutrition information systems with identification of gaps in reporting on simplified approaches and recommendations for additional information to be collected
	Definition of reporting indicators for each simplified approach including what data to collect at what level (e.g. health facility level, community level) and how it can be integrated into national systems.
	Pilot integrating simplified approaches into national nutrition monitoring frameworks and review of lessons learned
	Development of guidance on how to collect or merge data for simplified approaches without changing the existing reporting system and avoid parallel data collection systems
	Definition structure for documentation of data and lessons learned for each approach, especially in emergency contexts and in relation to gaps in research outlined in this document.
Policy and Advocacy	Development of advocacy points to support government uptake of simplified approaches to mitigate operational challenges in the absence of formal guidance
	Interim guidance while governments develop and approve guidance notes, policy and collect home-grown evidence
Research Gaps and Health System Challenges	Efficiency of each approach and impact on the health system: • How effective is the approach in increasing coverage, treatment outcome, or improving quality of patient satisfaction/adherence • What problem is the approach addressing and is there a cost and workload savings
	Definition of a strategy to strengthening continuum of care for SAM-MAM
	Research and guidance on multiple approaches implemented at the same time as a package
	How to operationalize these approaches within the context of the health system-when does research translate into changes in national guidelines and protocols?
	Use of Simplified Approaches to ease the burden when the system is stretched then returning to a standard package of interventions when the situation normalizes.

	Defining a package of evidence-based simplifications for the treatment of wasting based on context and capacity as an entry point to transition between emergency and development contexts to be integrated into routine services including a decision tree for approaches to implement in different contexts including seasonal spikes or varying environments within each country.
	o Emergency
	o Recovery
	o Normal/development

ANNEX 1: **DATA COLLECTION TOOL**

Instructions: *To support regional efforts to accelerate implementation and scale up of simplified approaches to treatment of Acute Malnutrition (AM), please complete the following tool detailing information on simplified approaches in your country. Simplified approaches include but are not limited to: Use of one product for treatment (RUTF); Reduced treatment dose of RUTF; Family MUAC; MUAC only admission; Simplified protocol (one protocol across SAM and MAM; Delivery of AM Services by CHVs*

Section 1: Scope of Existing CMAM Services

1. Country Name: ☐ Existence of National CMAM Protocols and Guidance Yes/No ☐
2. CMAM services in National Nutrition Plans and Budgets Yes/No/Other (explain) ☐
3. Coordination Mechanisms in place to support CMAM services and adaptations to protocols: ☐
4. Percent of health facilities in country offering CMAM services: ☐

Section 2: Simplified Approaches

Follow the instructions to complete the chart below:

Simplified Approach *List all approaches currently implemented in country;* **Geographic Area:** *region(s) or county(ies) where the approach is implemented. List all that apply and note context (urban, peri urban or rural);* **Target beneficiaries:** *children 0-23 mos, children 6-23 mos, children 6-59, PLWs, Other (list);* **Coverage** *number of target beneficiaries;* **Delivery channel:** *Community-based (extension workers), hospital, health facility, Mobile clinic, other (list);* **Implementing Partner:** *Note implementing Partners including government partners; Context: emergency response, COVID adaptation, pilot, NGO-run service, integrated into Government CMAM service delivery;* **Plans to scale up approach:** *yes/no/maybe*

Simplified Approach	Geographic Area	Target Beneficiaries	Coverage	Delivery channel	Implementing Partner	Context of implementation	Plans to scale up

Section 3: National Commitment to Simplified Approaches

1. Do national level policies or guidelines for the approach exist?

a. If yes, to what extent are they included in national level planning and budgets?

2. List tools that have been developed for the approach
3. What financial resources exist that are allocated to simplified approaches?
4. What coordination mechanisms are in place to support CMAM services and adaptations to protocols?

Section 4: Data Collection and Documentation

5. How is data collected on the simplified approaches implemented (through health system, parallel, not collecting data) ☐
6. Indicators: short description of the indicators that are being used ☐
7. What reporting mechanisms and lines for reporting are in place? ☐
8. Research: is research being conducted on the approach, yes/no, if yes, what kind of research? ☐

Section 5: Challenges

Tick all boxes that apply corresponding to the main challenges implementing simplified approaches and briefly describe the nature of the challenge

☐ Financing and cost ☐
☐ Supply Chain ☐
☐ Health System Infrastructure ☐
☐ Policy and Decision Making ☐
☐ Coverage, Continuum of Care; Quality Assurance ☐
☐ Data Collection and Documentation ☐
☐ Other (Explain) ☐

Section 6: Opportunities

Are there compelling current opportunities or initiatives underway related to planning, developing or supporting simplified approaches that should be highlighted?

Phase	Description of Approach	Funded Y/N and Source
Planning		
Developing		
Supporting		

Additional Comments:

unicef

for every child