

CMAM 2021

22-25 March

VIRTUAL CONFERENCE

CASE STUDY 1

NIGER

Scaling Up Management
of Wasting in Niger:
A Case Study

CONCERN
worldwide



Irish Aid

An Roinn Gnóthaí Eachtracha agus Trádála
Department of Foreign Affairs and Trade

1.

Context

Wasting burden

Niger, a land-locked Sahelian nation in West Africa, is subject to frequent climatic shocks, insecurity, and humanitarian emergencies.

Wasting in children is a persistent problem with the country experiencing critical nutrition emergencies in 2005, 2010, 2015 and 2018 (GAM \geq 15%). However, even in non-emergency times the prevalence of wasting still exceeds WHO-UNICEF standards¹ for a high GAM, which means that many children in Niger are not reaching their full potential (see Figure 1). While wasting persists throughout Niger, the predominately pastoralist regions of Zinder, Maradi and Tahoua are traditionally the hardest hit.

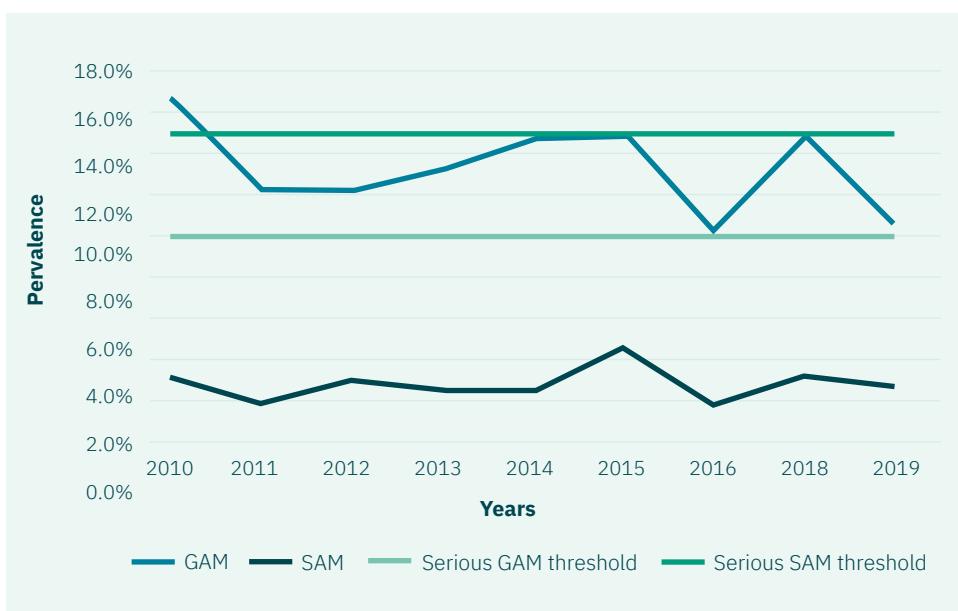


Figure 1. Niger GAM and SAM prevalence from national SMART surveys 2010-2019, contrasted to WHO-UNICEF emergency nutrition thresholds (1). (Note: data from 2017 is not available)

The consistently high prevalence of global acute malnutrition translates into a high caseload for wasting services. The average yearly admissions for OTP from 2010 to 2019 was 334,233 children, with an average of an additional 49,842 children per year requiring inpatient care in Stabilization Centres (1).

1 Prevalence of Global Acute Malnutrition 10-14.9% is considered a serious emergency and GAM above 15% is a critical emergency (3).

Wasting policies and frameworks

In order to respond to a rapid evolving nutritional crisis, the Ministère de la Santé Publique (MSP, Ministry of Public Health) in Niger began piloting CMAM in 2005, with the development of a national protocol incorporating outpatient treatment (2). Until 2007 the provision of outpatient nutrition services were largely delivered in parallel to the health system by international NGOs. Revisions to the national protocol in 2006 and 2009 provided the opportunity to integrate the treatment of wasting into the national health system. In addition, the Ministry of Public Health was restructured in 2007 and created the Nutrition Department, in order to raise the profile of nutrition.

Service coverage and quality

However, despite incorporation of wasting services into the country's strategic frameworks and strategies for health, the available data indicates that coverage of services for severe wasting and nutritional oedema remain largely below SPHERE standards in rural areas (Figure 2) (1,4,5). However this data is limited as it represents a mix of areas with no consistent representation across the years. In addition this data does not include coverage of services for moderate wasting. With access to products for management of moderate wasting in Niger being limited to certain regions and only available to wasted children 6 to 23 months old, it can be assumed that coverage of these services is likely lower than for severe wasting.

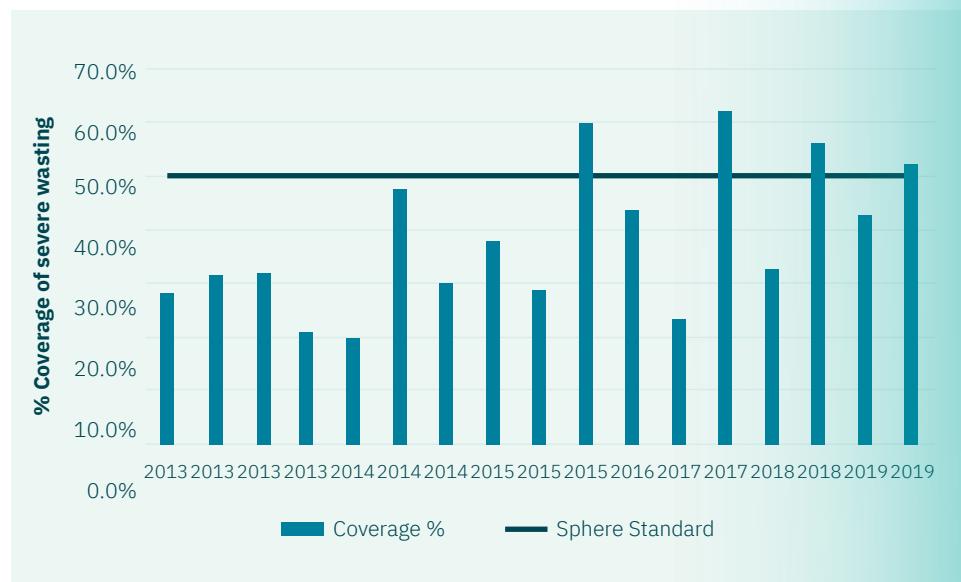


Figure 2. Coverage of cases of severe wasting compared to the SPHERE standard for rural areas. (based on results from 17 SQUEAC/ SLEAC surveys) (1,4,5).

There are several barriers to accessing wasting services in Niger such as supply continuity issues, opportunity costs for caregivers, and geographical access. While most health centres in Niger offer treatment services for wasting as part of the minimum health package², the coverage of primary health care remains low in Niger with only half the population (51%) having access to a facility³ (1). Health posts which are larger in number rarely offer wasting services⁴. This constrains access to both health and nutrition services. In addition, while treatment of moderate wasting is incorporated into the national health protocol, the availability of specialized nutritional products, such as Ready-to-Use Supplementary Foods (RUSF) are limited. If in stock, RUSF is normally only available in areas of the country that exhibit the highest wasting.

When considering measures of wasting service quality, the discharge criteria for severe wasting consistently meet SPHERE standards with the cured rate exceeding 75%, the death rate under 3%, and the defaulter rate under 15% for outpatient services. The exception being the defaulter rate exceeding SPHERE standards in 2010, 2012 and 2013 (1). The reason for high defaulters in these years is not clearly understood. Direct observations of services shows an acceptable level of adherence to treatment protocols, with the exception of health information sessions, which appear to not be prioritized by the medical nursing staff (1).

334,233 children per year

the average yearly admissions
for OTP from 2010-2019

+49,842 children per year

the average of additional children
per year requiring inpatient care
in Stabilization Centres (1)

- 2 According to MSP data 99% of Centres de Santé Intégrés (CSI, Integrated Health Centres) offer OTP while 96% SFP (depending on the availability of nutritional rehabilitation products).
- 3 Defined as the proportion of the population having access to a health facility within a 0 to 5km radius
- 4 Only 4% of Cases de Santé (CS, Health Posts) offer OTP, while 8% offer SFP (depending on the availability of nutritional rehabilitation products).

2.

Key successes

While challenges persist with coverage of services in Niger, it is clear that the existing system for the management of wasting services has significantly contributed to a reduction in mortality in children under five years (1). The Government of Niger is committed to ensuring that wasting sevices are available in all health districts within the country, as an essential component of health services.

The Ministry of Public Health in Niger was an early adopter of the CMAM Surge approach, having begun in a limited manner in 2014 in Tahoua region, with a clearer scale-up from 2016 onwards across Tahoua and other regions in Niger and West Africa. The CMAM Surge approach supports the development of shock-responsive nutrition services at the CSI level. CMAM Surge is intended to support the health system, and empower health workers, to better anticipate, prepare for, and bounce back from fluctuations in the demand for services for the management of wasting. CMAM Surge is unique in that it empowers health facility staff to use their own data and understanding of health facility capacity to identify and address workload overwhelm in order to protect service quality. Learning reviews and evaluations of the approach demonstrate its acceptance in health workers and its relevance to the Niger context with clear seasonal peaks in wasting (4). A strategy for the national scale-up of CMAM Surge has been drafted and is awaiting approval by the MSP. In 2021, the approach is expanding to a more holistic Health Surge, which will include other seasonally influenced health indicators such as malaria.

Family MUAC, designed to support early detection and referral of wasted children, has been implemented in all regions of the country, with the exception of Agadez. This approach empowers families to detect wasting early and seek services if required, and it considered a cost-effective way of ensuring active screening. The Family MUAC implementation strategy is in the process of scaling up.

CMAM Surge
approach adopted
by the Ministry of
Public Health in
Niger adopted

2014

Tahou region in
limited manner

2016

Tahou region +
other regions in Niger
+ West Africa

3.

**Enablers
and barriers
to the scaling
up of wasting
treatment**

A comprehensive evaluation of the nation's CMAM programme was completed in January 2021 and includes an analysis of the degree to which CMAM has been integrated into the different health system building blocks in Niger as well as the identification of key barriers and enablers to further scaling up treatment access and utilization (1). This section explores the main findings from that report as they pertain to service scale-up. A summary of that analysis can be seen in Table 1.

Enablers

A few key enablers have supported the scaling up of services for wasting in Niger:

- › **Governance and Leadership.** There is clear inclusion of wasting treatment and prevention in the strategic frameworks for health, development and poverty reduction in Niger. The integration of wasting treatment into the essential health package and the availability of services in most health facilities⁵ has supported improved access to services in Niger. Health Management Teams at the National, Regional and District level all include focal points for nutrition, to ensure this critical aspect of health is adequately addressed.
- › **Information.** Information systems for health and nutrition are integrated under the DHIS-2, so that no parallel data systems exist.

⁵ Centres de Santé Intégrés (CSI, Integrated Health Centres), Cases de Santé (CS, Health Posts), Centres Hospitaliers Régionaux (CHR, Regional Hospitals), and Centres de Santé de la Mère et de L'Enfant (CSME, Mother and Child Health Centres)

Health System Building Block	Degree of integration
Governance and Leadership	Achieved
Finance	Partial Achieved
Information	Achieved
Human Resources	Partial Achieved
Medicines, Supplies and Infrastructure	Partial Achieved
Service Delivery	Partial Achieved
Community	Partial Achieved

Table 1. An analysis of CMAM integration into the health systems building blocks in Niger (1)

Barriers

Some key points from the blocks which demonstrate only partial integration include:

- › **Financing.** While wasting is integrated well into the strategies and policies of the MSP, the country still does not have a solution for the sustainable financing of wasting treatment. The principal cost being RUTF, compromising around 70% of the budget (1). There is still a need for significant external financial support from agencies such as UNICEF and WFP in order to meet the needs of the sector. However, the Government of Niger has developed a roadmap in 2020 which will gradually transition the financing of wasting management from international partners to the state.
- › **Human Resources.** Within primary care facilities, nutrition is a function integrated into the responsibilities of the core nursing staff. Hospitals, especially those with Stabilization Centres for the inpatient management of wasting, will have nutrition-dedicated staff who work imbedded within health teams. However, capacity development on the management of wasting is still not fully integrated into most pre-service training. Some colleagues may address wasting within their curriculums but its quality is not assured by the state. Therefore comprehensive in-service training is still required to ensure that nurses and doctors develop the necessary skills in wasting identification and management. Often in-service training is run through the MSP and supported by UN or NGO agencies.

- › **Medicines, Supplies and Infrastructure.** RUTF is included in the essential medicines list for Niger. However, historically its provision has been parallel to the government system for the ordering and delivery of other essential medicines and supplies. Financing of RUTF and other nutrition supplies is still primarily provided through UNICEF and WFP. In addition there have been issues with sufficiency of RUTF supply, and stock-outs of RUSF are pervasive. In 2020 the MSP along with key stakeholders elaborated a plan which details the provision of essential medicines and supplies by the Government of Niger (6). From procurement all the way to delivery at the CSI level. Currently this plan is being piloted in the six districts of Maradi region before national roll-out.
- › **Service Delivery.** While wasting treatment is imbedded in health services, there is an opportunity to improve holistic care of the carer-child unit, so that there are no missed opportunities for care when a child comes to access wasting treatment. Although services for severe wasting treatment are available in most health facilities, only 51% of the population in Niger has acceptable access to health facilities which constrains treatment access. In addition, availability of RUSF and other products for the management of moderate wasting are inconsistent within and between years meaning that a significant number of wasted children do not receive support. Local food demonstrations have been developed to fill this gap, however the overall number of wasted children has changed little in the last 10 years.
- › **Community.** The diagnosis and referral of wasting at community level is achieved through Rélais Communautaires (RCom, Community Screeners) and mothers. While some RComs act as ICCM agents, the treatment of wasting is currently not in their remit, see below.

Recent adaptions to wasting services

In order to improve coverage of wasting treatment in Niger the MSP is focusing on decentralizing detection and simplifying admission and treatment protocols. Several CMAM adaptations are being scaled up or piloted to achieve this.

Mother MUAC

The proof of concept for Family or Mother-led MUAC was completed in Niger and was published in 2015 (8) with a further large-scale pilot reinforcing its effectiveness and appropriateness published in 2016 (9). The evidence shows that mothers or families can reliably use MUAC tapes to diagnose wasting and that training and supporting them to do so can lead to an earlier presentation at health facilities and therefore a higher median MUAC at admission and a reduced need for inpatient services. Results from the Mother MUAC trials in Niger have been so compelling that a national strategy for its scale up has been drafted and is awaiting approval by the MSP.

Revised admission criteria

The Government of Niger in partnership with the INGO ALIMA is conducting a trial to assess the appropriateness of using revised admission criteria to capture both moderate and severe wasting and administer revised dosages of RUTF. Therefore the trial will provide evidence on whether or not revised admission criteria and combined/reduced dosages of RUTF are appropriate for Niger. Currently the national protocol in Niger allows for admissions based on nutritional oedema, MUAC or weight-for-height z-score (WHZ). The general consensus within the government is that while there is concrete evidence for using MUAC for screening, WHZ is still a critical measurement for admissions into CMAM programming (7). The trial had three arms, as described below, and admission into two of the arms will be via low MUAC and/or oedema. The outcomes of this trial, once available (likely late 2021 or 2022), may (or may not) provide evidence to change the national protocol to diminish the importance of WHZ in Niger⁶.

6 <https://clinicaltrials.gov/ct2/show/NCT04698070>

Combined and reduced dosages of RUTF

The GoN/ALIMA trial will assess whether or not adapted RUTF dosing is as effective and efficient as the current standard treatment for moderate and severe wasting in Niger (which is based on current WHO protocols). This trial has three arms as detailed in Table 2. While standard protocol for severe wasting management starts with smaller doses of RUTF and increases as the child gains weight, the OptiMA arm assumes that severely wasted children require a higher energy/kg at the start of rehabilitation, scaling down energy/kg as they gain weight. Alternatively ComPAS seeks to radically simplify RUTF dosing, providing a unique dose for severe and another one for moderate wasting.

Study arms	Admission criteria	Treatment protocol
Standard Niger protocol	SAM: MUAC <115 mm, WHZ<-3 or nutritional oedema MAM: MUAC 115-124 mm and WHZ>-3 but <-2 (children 6-24 months)	SAM: RUTF based on weight at each visit MAM: RUSF 1 sachet/day
OptiMA arm	MUAC <125 mm or nutritional oedema	Scaled use of RUTF based on weight: 170 kcal/kg/day for MUAC <115 mm or nutritional oedema 125 kcal/kg/day for MUAC 115-119 mm 75 kcal/kg/day for MUAC 120-124 mm
ComPAS arm	MUAC <125 mm or nutritional oedema	Standardized use of RUTF: 2 sachet/day for MUAC < 115 mm or nutritional oedema 1 sachet/day for MUAC < 125 mm

Table 2. Description of study arms in the GoN/ALIMA trial for adjusted admission and treatment protocols for wasting.

4.

Moving
forward

The CMAM evaluation completed in January 2021 highlighted key areas for improving programming as discussed above. Moving forward the following will support the scale-up of wasting services in Niger:

- › Simplifying admission, discharge criteria, and RUTF dosing will ease the work burden associated with wasting treatment, which could in turn increase the opportunity for other cadres to offer wasting services (ex. Health Posts).
- › Approval of the national strategy for scaling up Family MUAC will help to promote early identification and presentation to reduce the cases of complicated wasting.
- › Identify a sustainable solution for the management of moderate wasting.
- › Improving the supply chain and logistics for RUTF procurement and delivery will limit stock-outs.
- › Approval of the national strategy for scaling up CMAM Surge and piloting a broader Health Surge, in order to support a health system which can respond to peaks in service demand without compromising service quality and continuity.

In addition, a critical concern for the MSP is that the overall number of wasted children in Niger has remained relatively constant for over 10 years. The MSP would like to see scaled up and innovative investment in wasting prevention in Niger in order to see a reduction in the overall need for wasting services.

Today

The overall number of wasted children in Niger has remained relatively constant for over 10 years.

Tomorrow

Niger needs scaled up and innovative investment in wasting prevention in order to see a reduction in the overall need for wasting services

Literature Cited

1. EVIHDAF (2021). Rapport d'évaluation: Évaluation summative de la prise en charge de la malnutrition aiguë sévère, Niger (2010-2019). République de Niger et UNICEF.
2. Ministère de la Santé Publique et de la Lutte Contre les Endémies (2005). Protocole national de prise en charge de la malnutrition.
3. WHO (2000). The management of nutrition in major emergencies. WHO: Geneva.
4. Concern Worldwide (2019). CMAM Surge final evaluation report, Tahoua Niger.
5. Sphere Association. The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response, fourth edition, Geneva, Switzerland, 2018. www.spherestandards.org/handbook
6. SUPPLY PLAN
7. Dalgish SL., Badou MS., Sirat A., Abdullahi O., Adalbert MFE., Biotteau M., Goldsmith A., Kozuki N (2019). Combined protocol of severe and moderate acute malnutrition in emergencies: Stakeholders perspectives in four countries. *Maternal and Child Nutrition* <https://doi.org/10.1111/mcn.12920>
8. Blackwell N., Myatt M., Allafort-Duverger T., Balogoun A., Ibrahim A., & Briend A (2015). Mothers Understand And Can do it (MUAC): a comparison of mothers and community health workers determining mid-upper arm circumference in 103 children aged from 6 months to 5 years. *Archives of Public Health* 73:26. DOI 10.1186/s13690-015-0074-z
9. Alé FGB., Phelan KPQ., Issa H., Defourny I., Le Duc G., Harczi G., Issaley K., Sayadi S., Ousmane N., Yahaya I., Myatt M., Briend T., Allafort-Duverger T., Sheperd S., & Blackwell N (2016). Mothers screening for malnutrition by mid-upper arm circumference is non-inferior to community health workers : results from a large-scale pragmatic trial in rural Niger. *Archives of Public Health* 74:38. DOI 10.1186/s13690-016-0149-5