



# A Review of Fortified Blended Food Supplementation and Mid-Upper Arm Circumference Recovery in Children with Moderate Acute Malnutrition: The Tahoua, Niger Perspective

**Boubacar Sani<sup>1</sup>, Aïchatou Moussa<sup>2</sup>, Fati Issoufou<sup>1</sup>, Mahamane Alzouma<sup>1</sup>**

<sup>1</sup> National Institute of Agricultural Research of Niger (INRAN)

<sup>2</sup> Department of Public Health, Islamic University of Niger, Say

**Published:** 01 July 2005 | **Received:** 21 March 2005 | **Accepted:** 16 May 2005

**Correspondence:** [bsani@outlook.com](mailto:bsani@outlook.com)

**DOI:** [10.5281/zenodo.18528790](https://doi.org/10.5281/zenodo.18528790)

## Author notes

*Boubacar Sani is affiliated with National Institute of Agricultural Research of Niger (INRAN) and focuses on Medicine research in Africa.*

*Aïchatou Moussa is affiliated with Department of Public Health, Islamic University of Niger, Say and focuses on Medicine research in Africa.*

*Fati Issoufou is affiliated with National Institute of Agricultural Research of Niger (INRAN) and focuses on Medicine research in Africa.*

*Mahamane Alzouma is affiliated with National Institute of Agricultural Research of Niger (INRAN) and focuses on Medicine research in Africa.*

## Abstract

Moderate acute malnutrition (MAM) is a persistent public health challenge in the Sahel, with the Tahoua region of Niger experiencing high burdens. Fortified blended foods (FBFs) are a standard nutritional intervention, but a synthesis of evidence regarding their specific effect on mid-upper arm circumference (MUAC) recovery in this setting is needed. This review aims to synthesise and critically appraise existing evidence on the impact of FBF supplementation on MUAC recovery in children with MAM in Tahoua, Niger. It evaluates programme effectiveness and identifies factors influencing outcomes. A structured literature review was conducted. Peer-reviewed articles, grey literature, and programme reports focusing on FBF interventions for paediatric MAM in Tahoua were systematically identified. Data were extracted and synthesised thematically. The review found variable effectiveness of FBF programmes in Tahoua. Recovery rates were often suboptimal, with analyses from major programmes indicating less than 60% of children achieved sustained MUAC recovery within standard treatment periods. Outcomes were significantly influenced by household food security, the timeliness of ration delivery, and caregiver adherence. While FBFs are a cornerstone of MAM management in Tahoua, their impact on MUAC recovery is inconsistent and frequently inadequate. A standalone commodity-based approach appears insufficient without addressing broader contextual and systemic barriers. Recommendations include integrating FBF distribution with complementary cash-based interventions, strengthening community-level support for caregivers, and improving supply chain logistics. Future programmes should incorporate enhanced monitoring of MUAC trajectories and more robust operational research. Moderate acute malnutrition, fortified blended food, supplementary feeding, mid-upper arm circumference, Niger, Tahoua This review consolidates context-specific

evidence to inform the design and implementation of more effective nutritional interventions for moderate acute malnutrition in Tahoua, Niger.

**Keywords:** *moderate acute malnutrition, fortified blended foods, mid-upper arm circumference, nutritional recovery, Sahel, Niger, community-based management*

## ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

**Email:** [info@parj.africa](mailto:info@parj.africa)

Request your copy of the full paper today!

## SUBMIT YOUR RESEARCH

**Are you a researcher in Africa? We welcome your submissions!**

Join our community of African scholars and share your groundbreaking work.

**Submit at:** [app.parj.africa](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge