



# Cost-Effectiveness of Integrating Severe Acute Malnutrition Screening into the Community Health Extension Programme in the Somali Region of Ethiopia: A Systematic Review

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**Published:** 22 February 2003 | **Received:** 12 November 2002 | **Accepted:** 13 January 2003

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**DOI:** [10.5281/zenodo.18528435](https://doi.org/10.5281/zenodo.18528435)

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## Abstract

Severe acute malnutrition (SAM) is a critical public health issue in the Somali Region of Ethiopia, contributing substantially to child morbidity and mortality. The Community Health Extension Programme (CHEP) is a central component of the primary healthcare system, but SAM screening is not a standardised part of its activities, which may limit opportunities for early, cost-effective management. This systematic review aimed to synthesise evidence on the cost-effectiveness of integrating systematic SAM screening into the CHEP within the Somali Region. Its objectives were to evaluate economic outcomes, identify primary cost drivers, and assess the feasibility of integration. A systematic review of published and grey literature was conducted. Databases were searched for studies evaluating the costs and outcomes of community-based SAM screening, particularly programmes involving health extension workers. Studies were screened, selected, and data extracted against pre-defined criteria. The quality of included studies was appraised using standard tools. The review identified a lack of cost-effectiveness analyses specific to the region. However, evidence from comparable settings indicates that community-based SAM screening by trained lay health workers is likely to be cost-effective. A principal finding is the potential for significant cost savings from averting costly inpatient treatment. Major cost drivers included training, supply chains for measurement tools, and supervision systems. Integrating SAM screening into the CHEP in the Somali Region appears economically promising. While direct local evidence is scarce, extrapolation from similar contexts suggests the long-term benefits of reduced hospitalisation and improved child survival would likely justify the initial investment required for integration. There is an urgent need for robust, region-specific

cost-effectiveness research. Programme design must prioritise sustainable training and supply chain mechanisms. Policymakers should consider piloting integrated screening in selected districts with built-in monitoring and evaluation. severe acute malnutrition, cost-effectiveness, community health workers, screening, Ethiopia, Somali Region, health extension programme This review consolidates available economic evidence to inform policy on integrating malnutrition screening into Ethiopia's community health platform, highlighting critical evidence gaps for the Somali Region.

**Keywords:** *Severe acute malnutrition, Cost-effectiveness analysis, Community health workers, Sub-Saharan Africa, Systematic review, Child health, Ethiopia*

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