

ORIGINAL RESEARCH

Treatment of Moderate Acute Malnutrition through Community Health Volunteers is a cost-effective Intervention: Evidence from a Resource-Limited Setting

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Abstract

Treatment outcomes for acute malnutrition can be improved by integrating treatment into community case management (iCCM). However, little is known about the cost-effectiveness of this integrated nutrition intervention. The present study investigates the cost-effectiveness of treating moderate acute malnutrition (MAM) through community health volunteer (CHV) and integrating it with routine iCCM. A cost-effectiveness model compared the costs and effects of CHV sites plus health facility-based treatment (intervention) with the routine health facility-based treatment strategy alone (control). The costing assessments combined both provider and patient costs. The cost per DALY averted was the primary metric for the comparison, on which sensitivity analysis was performed. Additionally, the integrated strategy's relative value for money was evaluated using the most recent country-specific gross domestic product threshold metrics. The intervention dominated the health facility-based strategy alone on all computed cost-effectiveness outcomes. MAM treatment by CHVs plus health facilities was estimated to yield a cost per death and DALY averted of US\$ 8743 and US\$ 397, respectively, as opposed to US\$ 13,846 and US\$ 637 in the control group. The findings also showed that the intervention group spent less per child treated and recovered than the control group: US\$ 214 versus US\$ 270 and US\$ 306 versus US\$ 485, respectively. Compared with facility-based treatment, treating MAM by CHVs and health facilities was a cost-effective intervention. Additional gains could be achieved if more children with MAM are enrolled and treated.

Keywords: community management of acute malnutrition, cost-effectiveness, integrated community case management, Kenya, moderate acute malnutrition.