

## Effectiveness of Task Shifting in the Management of Malnourished Children in Northern Kenya: A Cluster-Randomized Controlled Trial

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### Abstract

Treating children with acute malnutrition can be challenging, particularly regarding access to healthcare facilities during treatment. Task shifting, a strategy of transferring specific tasks to health workers with shorter training and fewer qualifications, is being considered as an effective approach to enhancing health outcomes in primary healthcare. This study aimed to assess the effectiveness of integrating the treatment of acute malnutrition by community health volunteers (CHVs) into integrated community case management (iCCM) in two sub-counties in northern Kenya (Loima and Isiolo). We conducted a two-arm non-inferiority cluster-randomized controlled trial across 20 community health units. Participants were children aged 6-59 months with uncomplicated acute malnutrition. In the intervention group, CHVs used simplified tools and protocols to identify and treat eligible children at home and provided the usual iCCM package. In the control group, CHVs provided the usual iCCM package only (screening and referral of the malnourished children to the health facilities). The primary outcome was recovery ( $MUAC \geq 12.5$  cm for two consecutive weeks). Results show that children in the intervention group were more likely to recover than those in the control group [73.3 vs. 50.3; risk difference (RD)=25.7% (95% CI 11.7 to 39.6) and risk ratio (RR)=1.53 (95% CI 1.18 to 1.97)]. The probability of defaulting was lower in the intervention group than in the control group: RD=-20.8% (95% CI -31.3 to -10.2) and RR=0.29 (95% CI 0.17 to 0.49). The intervention reduced the length of stay by about 13 days, although this was not statistically significant and varied substantially by sub-county. Integrating the treatment of acute malnutrition by CHVs into the iCCM program led to better malnutrition treatment outcomes. There is a need to integrate acute malnutrition treatment into iCCM and review policies to allow CHVs to treat uncomplicated acute malnutrition.

**Keywords:** Task shifting, community health volunteers, non-inferiority cluster-randomized controlled trial, child malnutrition