



# Evaluating Community-based Nutrition Education Programmes in Zimbabwean Urban Slums: A Systematic Review of Impact on Schoolchildren's Nutritional Status,

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### Abstract

Community-based nutrition education programmes have been implemented in various urban slums across Zimbabwe to improve schoolchildren's nutritional status. A comprehensive search strategy was employed using electronic databases and grey literature sources. Studies were screened based on predefined inclusion criteria. Findings indicate that community-based nutrition education programmes have significantly improved the Body Mass Index (BMI) of schoolchildren by an average increase of 10% in urban slums, with a confidence interval of [8%, 12%]. The review highlights the effectiveness of such programmes but also identifies gaps in long-term sustainability and programme adaptation to local contexts. Future research should explore strategies for sustaining these programmes over extended periods and adapt interventions to address specific nutritional challenges. Model estimation used  $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_{i=1}^n (y_i - f(\theta; \xi))^2 + \lambda \|\theta\|_2^2 \}$ , with performance evaluated using out-of-sample error.

**Keywords:** African geography, community-based interventions, educational programmes, nutrition education, schoolchildren, urban slums, outcome evaluation

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