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## Multisector drivers of healthy diet costs and gender disparities in Africa

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### Abstract

Structural inefficiencies in food systems and socioeconomic inequalities increasingly constraint affordability of nutritionally adequate diets across many African countries. This study examines the multisectoral factors of the real cost of healthy diets (CoHD) and the gender-related effects in shaping diet affordability across selected African countries. Using cross-country panel data covering 2017–2024 from Food System Dashboard and Food Prices for Nutrition, the analysis integrates the indicators from market performance, infrastructure, food system performance, agricultural productivity, socioeconomic, governance, and environmental conditions. Specifically, the study examines how supply chain infrastructure, retail market development, food price volatility, remittance, gender inequality, food supply variability, food policy, and agricultural value-added influence the cost of healthy diets. A log linear panel regression is employed to estimate the fixed effects and random effects models, allowing for unobserved heterogeneity and temporal dynamics. The results indicate that food supply instability, growth in retail of ultra-processed foods, and food price volatility, significantly increases the cost of healthy diets, while agricultural value addition and improved supply chain infrastructure moderate diet costs. Personal remittance shows a mixed association with diet affordability, suggesting their impact in household dietary consumption smoothing. Gender inequality is a major structural driver associated with higher diet costs, indicating that social disparities worsen nutrition access and performance. The findings highlight the importance of nutrition-sensitive and gender transformative strategies within the food system that cuts across multifunctional factors whose influence trickle down to higher cost of healthy diet. These insights contribute to the broader view of food system transformation and nutrition strengthening policies in the Global South.

**Keywords:** Cost of healthy diet (CoHD), food price volatility, food systems, gender inequality, nutrition affordability

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