

# Replicating a Digital Voucher Intervention: Dietary Impacts on African Refugee Households in a Protracted Settlement Context

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A, b, d, o, u, l, K, a, r, i, m, B, a, r, a, r, u, j, i, j, e, ,, J, e, a, n, -, C, l, a, u, d,  
e, N, i, y, o, n, z, i, m, a, ,, M, a, r, i, e, -, J, o, s, é, N, d, a, y, i, s, h, i, m, i, y,  
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## | Abstract

Digital food voucher interventions may improve dietary diversity in humanitarian settings, though evidence from African refugee populations in protracted crises is limited. This study replicates a previously tested intervention within this distinct context. The purpose was to replicate and assess the impact of a digital voucher system for fresh fruits and vegetables on the dietary patterns of food-insecure African refugee families. The primary objectives were to measure changes in household dietary diversity scores and the frequency of fruit and vegetable consumption. A mixed-methods replication study employed a quasi-experimental design in a refugee camp in Burundi. An intervention group received a monthly digital voucher for six months, while a matched control group received standard food assistance. Pre- and post-intervention surveys measured household dietary diversity scores, and in-depth interviews explored dietary practices and perceptions. The intervention group demonstrated a modest but statistically significant increase in mean household dietary diversity score compared to the control group. The proportion of intervention households consuming fruits and vegetables at least daily increased by approximately 35%. Qualitative data indicated improved perceptions of food security, but also identified persistent logistical barriers to voucher redemption. This replication confirms that a digital voucher intervention can improve dietary diversity among African

refugee households in a protracted settlement, although the observed effect was smaller than in the original study. Contextual challenges within the camp environment moderated the intervention's impact. Implementing agencies should integrate digital voucher systems with robust technical support and retailer engagement. Future programmes should consider longer intervention periods and complementary nutrition education to enhance effectiveness. replication study, digital voucher, refugee nutrition, dietary diversity, food security, humanitarian aid, Burundi This study provides novel evidence on the transferability of a digital food voucher intervention to an under-researched African refugee context, offering practical insights for nutrition programming in protracted humanitarian settings.

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