



# Iron-Fortified Cassava Starch Adoption and Health Outcomes in Kibera Slum Women: A Mixed Methods Study Over Two Years

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## Abstract

Iron deficiency anemia is a prevalent health issue in urban slums like Kibera in Nairobi, Kenya, where access to diverse and fortified food sources is limited. A mixed methods approach combining quantitative survey data with qualitative interviews was employed to explore the relationship between dietary changes and health improvements among study participants. Forty percent of women reported increased consumption of iron-fortified cassava starch, leading to a significant reduction in their hemoglobin levels from baseline (mean pre-intervention hemoglobin: 8.2 g/dL) to post-intervention (mean post-intervention hemoglobin: 9.5 g/dL). The mixed methods study demonstrated the effectiveness of iron-fortified cassava starch in improving anemia among Kibera Slum women, providing evidence for its potential as a public health intervention. Health education campaigns should focus on promoting the consumption of fortified foods like cassava starch to combat iron deficiency anemia in urban slums. Treatment effect was estimated with  $\text{text}\{logit\}(\pi) = \beta_0 + \beta_1 p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, Cassava, Quantitative, Qualitative, Nutrition Intervention, Urbanization, Health Equity*

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