Title: The role of street foods as a source of micronutrients to residents of Nairobi, Kenya
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Abstract: Vitamin A (VA), iron and zinc deficiencies are now of public health concern in Kenya. Although more than 40% of Nairobi's lower-income areas consume street foods (SFs), inadequate information exists on their micronutrient (MN) content and there is little knowledge on the contribution or potential contribution of SFs to MN intake. The study objective was to determine household intake of VA, iron and zinc, and the proportion of the intakes from SFs. Cross-sectional surveys, biochemical analysis of foods and a nonrepetitive 24hr-dietary recall were employed. A sample of 600 households was surveyed in the two study sites. Ninety street food vendors were considered for the study. At least 30% of SFs were analyzed for VA, iron and zinc content. The study sites were Kangemi and Dandora (low and middle-low income groups, respectively). Student's t-test was used to compare the means of independent data from the two sites while the chi-square (x²) test was used to compare categorical (%) data from the two sites. Results indicate that there was no significant difference (p<0.05) in the consumption pattern of SFs between the two sites. VA intake from SFs was higher in Dandora than in Kangemi i.e. 9.5% and 2.6% of Recommended Daily Intake (RDI), respectively. The proportion of VA intake from SFs (out of the daily total VA intake) was 25% and 4% in Dandora and Kangemi, respectively. The differences in VA intake from SFs from the two sites was attributed to quantities consumed because there was no significant difference (p<0.05) in the pattern and in the levels of VA in SFs from the two sites. SFs contributed on average, about a quarter of daily intake iron in the two sites combined. Iron intake from SFs in both sites (15mg/AE in Kangemi and 25mg/AE in Dandora) was sufficient to meet the RDI for iron for adults (5-28mg/AE). From the quantities consumed, the difference in iron intakes was partly attributed to the consumption pattern since the consumption pattern of some iron-rich foods was statistically different (p<0.05) between the two sites. Zinc intake from SFs on average accounted for about one-fifth of daily intake. Although the absolute values and proportions of zinc intakes were higher in Dandora than Kangemi, there was no statistical proof (p<0.2, p<0.34) that SFs had more contributory role in Dandora than Kangemi. There was significant differences (p<0.03) in the contribution of VA and iron intakes from SFs in the middle-low and low-income groups in Nairobi. SFs zinc accounts for 11.9% of RDI in Kangemi and 24.6% in Dandora. VA, iron and zinc intakes from SFs are low among the low income groups as compared to middle low income group. These finding are expected to guide policy makers, city council authorities, research institutions and relevant stakeholders on the way forward for SFs in Nairobi. Key words: Street foods, micronutrients, low-socio economics, Nairobi.