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QUANTITATIVE ESTIMATES OF DIETARY INTAKES OF HOUSEHOLDS IN SOUTH TARAWA, KIRIBATI

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Statement of problem: Macro and micronutrient malnutrition are public health concerns in most Pacific Small Island Developing States including Kiribati, partly due to monotonous, cereal-based diets that deficit diversity. This study aimed to assess the dietary intakes of adult population in South Tarawa, Kiribati.

Methods: A cross-sectional, community-based study sampled 161 households that were randomly selected from Betio, Bikenibeu and Teaorereke towns. Ethical approval and informed consent were obtained from the respected authority and subjects respectively. Family dietary surveys including 24-hour dietary recall were implemented to assess dietary diversity using Household Diet Diversity Scores. A 3-day weighed food record (a detailed dietary survey analysis) was carried out on the sub-sample (10%) of the sample size. Data were analysed using FoodWorks Pro 8 for nutrient intake and Statistical Product for Service Solution version 21 for descriptive statistics.

Results: The mean ±SD of Energy Density for males and females was 5.00±2.39 kcal/g and 4.39 ±2.64 kcal/g. The majority (87.5%) of the subjects consumed high energy dense foods and only 1.3% consumed low energy dense foods. About 90% of the subjects consumed rice-based dishes, 77.8% consumed flour-based dishes, and 33.3% consumed breadfruit based dishes. Sixty-one percent of the subjects had the lowest dietary diversity, 36.3% had a medium dietary diversity and only 2.7% had the highest dietary diversity. Based on the weighed food record results, the males' subjects of all age groups had adequate intake of riboflavin, niacin, vitamin C, iron and zinc but had consumed excess protein, sodium and magnesium and low intake of potassium and calcium. The females' subjects had adequate intake of vitamin C, iron and zinc but had consumed excess protein, sodium and magnesium and low intake of potassium and calcium.

Conclusion: Nutrient inadequacies are prevalent among the households in South Tarawa.

Recommendation: Food-based dietary diversity approaches are highly recommended.

Biography

Paul Eme is a currently a PhD student of the School of Health Science, Massey University, New Zealand. He had first and second degree in Human Nutrition from the University of Nigeria, Nsukka, Enugu State, Nigeria. He is from Igbo indigenous group with some knowledge on the cultural values of these indigenous peoples. He participated as a Research Assistant in collection of data in a World Bank Project on 'Food Composition Database for Nigeria' which is at its end stage now. His doctoral research is on developing, harmonizing, validating sustainable diets methodologies and metrics of Sustainable Food Systems in Pacific Island Countries. He has over 25 publications in the area of nutritional assessments, nutritional testing and evaluations (using rat and human subjects) and development of nutrition education packages. He has advanced skills in advanced data analyses using SPSS, EPI-Info and Epi-Data Softwares.

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