

Title Fruit and vegetable consumption frequency by urban households in Ghana - Implications for postharvest handling

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Abstract

The consumption of fruits and vegetables in many countries is well below the WHO recommended 400g per day. In Africa, the consumption of fruits and vegetables is quite limited. In Ghana, the consumption of vegetables is limited in variety because it originates often from household gardens and is influenced by the climate zone. In rural areas the consumption of fruits and vegetables may include some that are gathered from wild stands contributing to diets. In urban areas, for many opportunities for self-supply are severely constrained and urban consumers purchase their vegetables from street stands or open air markets and, only some, in supermarkets. Climatic conditions, labor and other inputs or budget constraints influence the variety of fruits and vegetables. The objective of the paper is to analyze the consumption frequency of selected fruits and vegetables common in Ghanaians' diet and link the consumption frequency to retail outlets used by consumers to provide insights into the postharvest handling needs. Frequency of vegetable consumption is important from nutritional and marketing standpoints. Eating vegetables often, even in limited quantity is desired because of the beneficial effects on health maintenance and disease prevention. Knowledge of frequency consumption benefits suppliers of fruits and vegetables - from growers to distributors, retailers and importers. The domestic food market is expected to grow due to the rising per capita incomes.

The analysis uses the survey data collected from 1042 respondents residing in three major cities in Ghana, i.e., Accra, Takoradi, and Tamale. The survey involved face-to-face interviews were conducted between February and June 2011 by the enumerators experienced in conducting surveys for the Ghana's National Statistical Service. The questionnaire was tested in the pilot study, but no substantive changes were made in the survey instrument. The enumerators underwent additional training to get familiar with the content of the survey and assure that the translation into local language was accurate. The total number of completed questionnaires was 241 in Tamale, a capital of the Northern Region, 201 questionnaires completed in Takoradi, and 800 questionnaires in Accra. Households were selected from among those surveyed by the National Statistical Service.

The questions probed for information about consumer food buying and eating habits, among others. In addition, the respondents shared information pertaining to their demographic and socio-economic characteristics and household features. The specific questions collected information about the age, household size and ages of household members, level of educational attainment (although many did not receive any formal education), and income. A separate question consisted of a list of typical eaten foods, including vegetables and fruits. Respondents indicated the frequency of eating an item daily, weekly or monthly. The selected vegetables included tomatoes, egg plant, greens, among others, and typical fruits including the imported apples.

Results reported by three cities show differences in the consumption frequency. Residents of Accra who enjoy higher average income per household had much different consumption frequency pattern than those of Takoradi or Tamale. Also, Tamale residents, who live in a different climatic zone, ate somewhat different set of vegetables than the residents of coastal towns of Takoradi and Accra. Income is influential in relation to fruit and vegetable consumption, but especially fruit. Also, the presence of children in the household is important for fruit consumption frequency, while the number of adults influences the vegetable consumption frequency. The relationship to income is consistent with the Engle curve although in the current study the measure is the consumption frequency. Suppliers of vegetables and, especially, fruits can expect substantial demand for produce.