

Abstract

Objectives: Relating food diversity, quality, and intake is one of the key aspects in understanding household food security. This paper aimed at relating food intake and quality, both being measurement for food security.

Methods: A household food consumption survey ($n = 200$) exploring food diversity, quality of foods, and their relation to food intake in Embo, a poor farming community in rural KwaZulu-Natal was carried out in November 2004 (period of insufficiency) and repeated in March 2005 (period of plenty). Household food intake strata were developed using matrices obtained from the Household Food Intake Index and nutritional adequacy ratios. Food quality was measured using food count and later using 5 food groups, namely, starches, vegetables and fruits, animal sourced foods, fats, and legumes.

Results: Single food count showed dietary diversity to be significantly different across households with different food intake during the period of plenty ($P \leq 0.000$). During the period of plenty, vegetable and fruits contributed significantly different proportions of energy ($P \leq 0.000$), protein ($P \leq 0.006$), iron ($P \leq 0.020$), and vitamin E ($P \leq 0.006$) to household food intake strata. Intake of vitamin A was more elastic as its intake variation from legumes, fats, and animal sourced foods was ($P \leq 0.000$), from starches ($P \leq 0.008$) and from vegetable and fruits ($P \leq 0.064$) during the second round. Starches are the most important food group to the community, whereas fats and animal sourced food groups are less important.

Conclusions: The current study has been able to include food quality in food security studies. Seasonality accounts for variation in food quality. The South African food-based dietary guidelines are relevant to the Embo community.

Key words:

- [Household Food Intake Index](#)
- [nutrients adequacy ratio](#)
- [food diversity](#)
- [food quantity](#)
- [food adequacy](#)
- [food quality](#)

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Abbreviations: FBDGs = food based dietary guidelines, HFII = household food intake index; NAR = nutrients adequacy ratio; RE = Retinal.