

Analysis of the nutritional composition of the typical meals of the rural workers in the Muanza District in Sofala - Mozambique

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Abstract

Introduction: Muanza district is located in Sofala province in central Mozambique, one of the poorest districts in the country. Here agriculture is the basis for the livelihood of many families, and their eating habits are based on products from their fields, especially cereals and tubers. The main objective was to characterize the dietary habits and the average nutritional intake of the peasants of Muanza and to propose adaptations to the habitual food in order to improve the adequacy of the nutritional intake of the population. **Methodology:** The information about the usual dietary intake of the adult community living in Muanza was collected by observation for 3 days, typifying the 3 most frequent days in terms of dietary intake in the community. Foods were weighed and the mean values of energy and macronutrients expressed in grams and contribution to the total energy value (TEV) were calculated using the Mozambican Food Composition Table. The nutritional composition of the "Nhakaka" (*Dioscorea cayennensis*) and "Minhanha" (*Dioscorea rotundata*) tubers was estimated by bromatological analysis. After analyzing the farmers food nutritional composition, it was proposed improvements in their diet. **Results:** The structure of the daily dietary intake includes two meals per day. On day 1, one of the meals was composed of Yam (*Dioscorea* sp) and tea and the other included Xima (prepared meal of sorghum) and dried fish. On day 2, one of the meals was composed by *Dioscorea cayennensis* and tea and another included Xima and okra (*Abelmoschus esculentus*). On day 3, one of the meals was composed of *Dioscorea rotundata* and tea and the other included Xima and Nhemba beans (*Vigna unguiculata*). The average daily intake of energy was 1352 Kcal, the carbohydrate intake was 937 g (69.3% for TEV), fat was 100g (7.3% of TEV) and protein was 316g (23.4% of TEV). When we increased the diet with seeds and fruits, daily energy would increase to 2125 Kcal, carbohydrates 1121g (52.7% for TEV), protein 423g (20% for TEV), fat 582 g (27.3% for TEV). **Conclusions:** Muanza peasants had a low energy intake considering their pattern of physical activity, with a predominance of carbohydrates and very low fat. The average daily energy intake as well as the fat intake increases with the inclusion of seeds and fruits.

Author Keywords. Nutritional composition, *Dioscorea cayennensis*, *Dioscorea rotundata*, Rural workers