

# **COST EFFECTIVENESS COMPARISON RELATED TO COST PER PRODUCT NUTRIENT OF AVAILABLE MEAT ALTERNATIVES AND MEAT PRODUCTS IN SUPERMARKETS AND HEALTH FOOD STORES OF TRINIDAD**

Amelia Gonowrie

Project Supervisor: Dr. Patricia Dyett

2014

**Background:** Past research have been conducted on the cost of various foods per pound and also cost in conjunction with the energy and nutritive value of the foods.

**Objectives:** The purpose of this study was to compare **(1)** the average cost of meat alternatives per 100g with meat products per 100g, **(2)** to compare the nutrient facts labeled on each item of meat alternatives corresponding to the actual meat and **(3)** to determine the cost effectiveness using the nutrient values for both meat alternatives and actual meat.

**Study Design:** Popular Supermarkets and health food stores in Trinidad were used in this study. This research utilized a cross-sectional design in which 53 products and data such as cost and nutrition fact label information were identified. A comparison of the differences in average cost and nutrient values were analyzed using ANOVA. The nutrients compared in each product were calories (kcal), protein (g), Fat (g), calcium (%), iron (%), vitamin B6 (%), vitamin B12 (%) and dietary fiber (g).

**Results:** ANOVA showed that there were significant differences between both meats and meat alternatives in terms of the nutrients: Protein (g), Fat (g), Vitamin B6 (%), Vitamin B12 (%) and Dietary Fiber (g) according to the statistical analysis. Meat alternative products had higher content of protein Vitamin B6, Vitamin B12 and dietary fiber than actual meat products. Meat alternatives were more cost effective since along with having more nutrients per 100g there was no significant difference in cost per product unit between the meat alternatives and real meat; and real meats had a higher cost per protein (g), Vitamin B6 and Dietary fiber compared to alternative meats.

**Conclusion:** Meat alternatives were found to be more cost effective for Protein, Fat, Vitamin B6 and Dietary Fiber, although the average cost of meat and meat alternatives were found to have no significant differences.