

## Abstract

**Objectives:** To determine the microbial load in food, examination of safety measures and possibility of implementing an Hazard Analysis Critical Control Points (HACCP) system.

**Design:** The target population for this study consisted of restaurants owners in Thika Municipality (n=30). Simple random samples of restaurants were selected on a systematic sampling method of microbial analysis in cooked, non-cooked, raw food and water sanitation in the selected restaurants.

**Subjects:** Two hundred and ninety eight restaurants within Thika Municipality were selected. Of these, 30 were sampled for microbiological testing.

**Results:** From the study, 221 (74%) of the restaurants were ready to eat establishments where food was prepared early enough to hold and only 77 (26%) of the total restaurants, customers made an order of food they wanted. 118 (63%) of the restaurant operators/staff had knowledge on quality control on food safety measures, 24 (8%) of the restaurants applied these knowledge while 256 (86%) of the restaurants staff showed that food contains ingredients that were hazard if poorly handled. 238 (80%) of the resultants used weighing and sorting of food materials, 45 (15%) used preservation methods and the rest used dry foods as critical control points on food safety measures.

**Conclusions:** The study showed that there was need for implementation of Hazard Analysis Critical Control Points (HACCP) system to enhance food safety. Knowledge of HACCP was very low with 89 (30%) of the restaurants applying some of quality measures to the food production process systems. There was contamination with Coliforms, Escherichia coli and Staphylococcus aureus microbial though at very low level. The means of Coliforms, Escherichia coli and Staphylococcus aureus microbial in sampled food were  $9.7 \times 10^3$ CFU/gm,  $8.2 \times 10^3$ CFU/gm and  $5.4 \times 10^3$  CFU/gm respectively with Coliforms taking the highest mean.