

Declaration by Student

UNIVERSITI TEKNOLOGI MARA

Project entitled "The Evidence Of Microbiological Presence In Food Premises: A Comparison Between Hulu Langat And Sepang District Of Selangor Darul Ehsan" is a presentation of my original research work. Wherever contributions of other involved, every

THE EVIDENCE OF MICROBIOLOGICAL PRESENCE IN FOOD PREMISES: A COMPARISON BETWEEN HULU LANGAT AND SEPANG DISTRICT OF SELANGOR DARUL EHSAN

Health and Safety (Hons)

HALID BIN AYOB

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**Project paper submitted in partial fulfillment of the requirements
for the degree of
Bachelor In Environmental Health And Safety (Hons.)**

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ABSTRACT

THE EVIDENCE OF MICROBIOLOGICAL PRESENCE IN FOOD PREMISES: A COMPARISON BETWEEN HULU LANGAT AND SEPANG DISTRICT OF SELANGOR DARUL EHSAN

HALID BIN AYOB

This study was performed to verify the presence of microbes that contributes to food poisoning in Hulu Langat and Sepang district, to determine the presence of three pathogenic bacteria and to identify the level of knowledge, attitude and practice of food handlers on safety of handling and preparing food.

Material and methods. This study was conducted in 20 selected premises involved directly in food poisoning incidents in Selangor 2011. 10 premises selected each in the district of Sepang and Hulu Langat. Collection of 10 food samples, 10 hand and 10 environmental swabs from each district done. All specimens were tested for *Salmonella sp*, *E coli* and *Staphylococcus aureus* growth. The time of food preparation and duration, the storage, cooking and display temperature were also recorded. Simultaneously 3 food handlers were selected in each premise to answer questionnaire regarding knowledge, attitude and practice towards safety of food handling. Nationality, education level, training and vaccine status of the respondents were obtained.

Results. In Hulu Langat, all tested bacteria detected consistently in 50% of food sample, 60% of hand and 46.6% environmental swab as compared to 3.3% in food, 13.3% hand and 13.3% of environmental swab in Sepang. In Hulu Langat, 50% of the food handlers have no education, 53.3% are Indonesian, 66.7% was not trained, 63.3% not vaccinated, 32.4% knowledge level, 35.6% positive attitude and only 34.4% practising safety. In Sepang, the majority of respondents reached SPM level, 73.3% are Malaysian, 70% undergo training and 70% vaccinated, 62.4% knowledgeable, 72.2% positive attitude and 63% practising safety.

Conclusion. *Salmonella spp*, *E.coli* and *Staphylococcus aureus* has been detected using the microbiological test in food samples, hand swab of food handlers and swabs from the chopping board. These microbes are more likely to cause food poisoning in consumers. It is also proven that the mean storage temperature which is lower in Hulu Langat district also contributes to higher food samples with microbial growth compared to Sepang.

Keywords: *microbes ,food handler, knowledge, attitude, practice*