

3836438 PHPH/M : MAJOR : NUTRITION ; M.Sc. (PUBLIC HEALTH)
 KEY WORD : THE MICROBIOLOGICAL QUALITY / FOOD /
 DRINKING WATER / UTENSIL

LUCKANA PUKDEEPOL : THE MICROBIOLOGICAL QUALITY OF
 FOOD, DRINKING WATER AND UTENSILS, CASE STUDY IN SCHOOL LUNCH
 PROGRAM OF SELECTED PRIMARY SCHOOLS, BANGKOK METROPOLIS.
 THESIS ADVISOR : VICHAI CHULAROJANAMONTRI M.P.H., ORASA SUTHIENKUL
 Ph.D., WONGDYAN PANDII Dr.P.H. 91 p. ISBN 947-589-730-2

The study of the microbiological quality of food, drinking water and utensil samples, case study in school lunch program in 26 selected primary schools, Bangkok Metropolis was carried out between November 1996 - January 1997. The observed information of food sanitation conditions in schools was included. Food, drinking water and utensil samples were tested for microbiological indicators, such as, total plate count (TPC), coliforms and *Escherichia coli* and enteropathogens (*Staphylococcus aureus*, *Bacillus cereus*, *Salmonella*, *Shigella* spp., *Vibrio cholerae* and *Vibrio parahaemolyticus*).

This study shows that the hygienic quality of food, drinking water and utensil samples was under the microbiological standard level in 20.9%, 3.9% and 47.4%, respectively. In food, total plate count, coliforms, *E. coli*, *S. aureus* and *B. cereus* exceeded the permitted microbiological standard levels in 50.0%, 42.9%, 14.3%, 14.3% and 64.3% of samples respectively. For water samples, the bacterial quantity of TPC were under the microbiological standard level in 100% of samples. For utensil samples, the bacterial quantity of TPC and coliforms were under the microbiological standard level in 18.9% and 100.0%. *Salmonella*, *Shigella* spp., *V. cholerae* and *V. parahaemolyticus* were not found in any of the tested samples. Geometric mean of the bacterial quantity of TPC in dessert samples were significantly higher than that in rice samples ($p < 0.05$). In addition, 4 schools (15.4%) did not show any TPC or bacteria contamination in food and utensil samples whatsoever.