

Salt Intake, Nutrition and Health Status on Tongan Adults
in The Process of Urbanization

Taeko Ouchi*¹, Miyuki Adachi*², Nobuko Murayama*² and
Yoshiyuki Okuwaki*³

*1 Kanagawa Prefectural Junior College of Nutrition

*2 Ecology of Human and Food, Kagawa College of Nutrition

*3 Microbiology, Kagawa College of Nutrition

67 Subjects, aged over thirty, were investigated in The Kingdom of Tonga. 15 males and 20 females living in 'UIHA area (rural area) and 14 males and 18 males living in KOLOFO'OU area (Urban area) were investigated.

1) Dietary Salt Intake were analyzed by means of 24 hour recall questionnaire. Dietary salt intake estimated 2.9g male, 1.3g female in 'UIHA and 5.4g male, 3.9g female in KOLOFO'OU area ('UIHA < KOLOFO'OU : P<0.01).

2) 24 hour Urinary salt excretion estimated 0.9g, 1.5g, 2.1g, 3.8g in 'UIHA area and 8.4g, 10.9g, 13.3g in KOLOFO'OU area.

3) Na/K ratio of functional urine meaned 0.75 in 'UIHA area and 1.46 in KOLOFO'OU area (P<0.001).

4) Urinary salt excretion calculated by Kawasaki's equation meaned 1.34g in 'UIHA area and 1.95g in KOLOFO'OU area(P<0.01).

5) Urinary salt excretion estimated by simple method using URO-paper was distributed 36% (less than 7g) and 10% (over 10g) in 'UIHA area, and 32% (less than 7g) and 32% (over 10g) in KOLOFO'OU area.

6) Processed foods (bread, butter, corned beef and any kind of tinned food etc.) supplied much salt than natural food in Tongan meals.

7) Person took twice meals with bread per day get much salt than those took zero or one meals with bread.

8) New styled dishes in Tonga (fry, stew and curry etc.) supplied much salt than traditional dishes in Tonga.

9) 11 kinds 21 items of processed foods selled in 'UIHA area. On the other hand 27 kinds 187 items selled in KOLOFO'OU area.

10) BMI means 27.0 male, 32.6 female in 'UIHA area and 32.3 male, 37.3 female in KOLOFO'OU area.