

### **PP 13 Urinary iodine status and prevalence of goitre among the children in Jaffna, Sri Lanka**

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**INTRODUCTION:** Iodine deficiency has several important health consequences in children such as mental retardation and impaired intellectual development.

**OBJECTIVES:** To estimate the urinary iodine status and to see, the prevalence of Goitre and current Iodized salting method used by mothers of Jaffna District.

**METHODS:** A Multistage cluster sampling was used to select children aged 1-5 years in Jaffna District. Thyroid gland of the children was measured by the palpation and graded according to the WHO, UNICEF, and the International Council for the Control of Iodine Deficiency's joint criteria. The house at which handle the iodized salt used for cooking was studied using interviewer administered questionnaire. Casual urine samples were analysed for urinary iodine excretion.

**RESULTS:** Among the 846 children selected, 414 (48.9%) were males and the mean age was 34.73 months. Mean ( $\pm$ SD) urinary iodine excretion was 149.8 ( $\pm$ 53.3)mg/dL. In this population, 17.8 % (*n*151) had urinary iodine deficiency ( $<100\mu\text{g/L}$ ). The prevalence of goitre was 0.4 % (*n*3; 2 children were affected with grade 1 and a child was affected with grade 2 goitre). Among the mothers, 71.5 % (*n*605), 5.6 (*n*47), 10.8 (*n*91), and 12.2% (*n*103) of the mothers had added iodized salts directly to the food while cooking, after washing with water, after completion of cooking and after mixing with water respectively. Thus, highest percentage (89.4%) of mothers used iodized salt in improper manner. Among the mothers who used iodised salt after cooking, only small number of children (5.9%) has excreted deficient amount of urinary iodine.

**CONCLUSION:** Even though the goitre rate is low, the deficiency in urinary iodine excretion is still high among the children. This could be attributed to the improper usage of iodized salt by the mothers. Thus, proper awareness program should be initiated to reduce the iodine deficiency to prevent the adverse effects on the health of children.