

**Scientific Session 2**

**Prevalence of malnutrition among children aged 1 to 5 years in Point-Pedro in Jaffna district.** By K. KANDEEPAN, S. BALAKUMAR and V. ARASARATNAM, *Department of Biochemistry, University of Jaffna, Sri Lanka.*

**Introduction:** Malnutrition remains the most serious health problem in South-Asian countries and the single biggest contributor to child mortality. Thus, Nutrition intervention is important throughout life, with ante-natal and early childhood phases being identified as some of the most critical times.

**Objectives:** To determine the prevalence of malnutrition and to investigate associated factors for malnutrition among children aged 1 to 5 years in Jaffna district.

**Methods:** Multistage cluster sampling was used to obtain a sample that represents the children aged 1 to 5 y. Children (n=90) were recruited for this study between February to September 2010 from one primary sampling unit of Point-Pedro. Information on age of the child, sex, birth weight, congenital problems, birth problems and stage at Child Health Development Records (CHDR) were derived from the CHDR. Information regarding household including socio-economic status, education, occupation of parents and breast feeding patterns were recorded by using pre and post corded questionnaires. General examination of the children was done by pre-intern doctors to detect anemia, pallor, Bitot's spot, Goiter and skin diseases. Weight, height, head circumference (HC) and mid-upper arm circumference (MUAC) were measured using a standard methods. Haemoglobin concentration of blood was assessed by using biochemical analyzer. Weight-for-age, height-for-age, weight-for-height, BMI for age, HC for age, MUAC for age were determined using WHO Anthro v.3.0.1 software..

**Result:** Data is available for 43 males (47.8%) and 47 females (52.2%). Anthropometric measurements of children were compared with WHO Z-scores. In the sample, 23.3% were underweight, 16.6% were wasted and 21.1% were stunted. Prevalence of low BMI for age was 11.1%, low HC for age was 8.8% and low MUAC for age was 3.3%. Among the children studied, 6.6% were both stunted and underweight; 10% were both wasted and underweight; and 1.1% was affected with underweight, wasting and stunting. Mean Z-score value for underweight, stunting and wasting were -1.35 (SD 0.99), -1.11 (SD 1.03), -1.09 (SD 1.01), respectively. Prevalence of anemia among children was 21.11%. Fifty percent of children were exclusively breast fed up to six months, while 6.6% of mothers failed to give breast milk regularly during this period.

**Conclusion:** Considerable malnutrition was evident among children at Point-Pedro region.