

## Nutritional status and caloric consumption of children from communities in urban division of Jaffna divisional secretariat area: A post war context of Sri Lanka

**Introduction:** Coexistence of undernutrition along with increasing diet-related non-communicable diseases of a developing country is more crucial and it affects on health and economic status of the country. In urban sector, nutritional intervention of economically more vulnerable children from colonies as communities is imperative to improve the nutritional status while monitoring obese children are crucial. High prevalence of childhood undernutrition was prevailed in Jaffna during three decades of war which ended in 2009.

**Objective:** The aim was to determine the nutritional status of children from Poor Urban Communities (PUC) and Urban Communities (UC) in Jaffna Divisional Secretariat Area.

**Methods:** A descriptive cross sectional study was used to identify the children in 2017. Twenty two GramaNi-ladhari divisions (8 PUC and 14 UC) were selected based on stratified sampling technique. Socio-demographic and economic factors, dietary pattern and illness were obtained. Anthropometric data (weight, height and skin fold thickness) were measured.

**Results:** A total of 953 children (461 males and 492 females) were selected from PUC (n=341) and UC (n=612). The mean( $\pm$ SD) age of the children was 33.4( $\pm$ 15.6) months with ranged from 01 to 59 months. Mean( $\pm$ SD) weight and height of the children from UC [13.4 ( $\pm$ 2.5)kg and 94.2 ( $\pm$ 10.3)cm] was significantly higher than from PUC 10.9( $\pm$ 2.7)kg and 85.2( $\pm$ 11.4)cm. Mean( $\pm$ SD) fat percentage of children from PUC and UC was 15.8( $\pm$ 8.7) and 27.4( $\pm$ 12.2) (p<0.001) respectively. The prevalence of wasting, underweight, stunting, overweight and obesity were 16.1, 28.4, 32.2, 12.1 and 4.2% respectively while only 1.2% of the children from PUC was affected with overweight. Prevalence of LBW children (<2500g) was 17.6 and 14.2% from PUC and UC respectively. Highest percentage of the households (36.7%) received the income between LKR5,000-10,000 while 12% of the families from PUC had the monthly income less than LKR5000. Mean energy from carbohydrate, fat and protein were 786.8( $\pm$ 492.7), 215.7( $\pm$ 124.3) and 178.8( $\pm$ 106.1)kcal/day respectively. Only 22% of the children from PUC had adequate consumption of calories while 23% of the children from UC consumed calories more than the recommended daily allowance. Family income ( $\chi^2=11.503$ ;df=4;p=0.021), educational level of parents ( $\chi^2=16.443$ ;df=3;p=0.001), dietary pattern, sanitary condition, frequently affected with diseases and low birth weight ( $\chi^2=10.76$ ;df=2;p=0.005) were significantly associated with malnutrition.

**Conclusion:** The undernutrition is still remained high level while overweight and obesity are gradually increasing in Jaffna district in post war scenario. This study confirms that, even though several factors have been influencing malnutrition, birth weight, family income, parental education and quality and quantity of food consumption are the causes for double burden of malnutrition among the children in Jaffna.

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