

## LIPID PROFILE AMONG ADULTS IN JAFFNA DISTRICT

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The aim of this study was to study the pattern of lipid profile among adults in Jaffna District as this has not been reported previously. A community based cross sectional descriptive study among adults in Jaffna district was under taken during the period of August, 2011 to May, 2012. A multi stage stratified cluster sampling was used to select the subjects. The first stage of sampling the population was stratified into urban and rural sectors. The primary sampling unit was a Grama Niladari Division (GND). Considering proportion of the population, 7 and 25 clusters were selected from the urban and rural sectors, respectively. In each GND, selected unit of enumeration was a household. Only one adult from each identified household was randomly selected by lottery method. Overnight fasting blood samples were collected. High Density Lipoprotein (HDL) cholesterol, Total Cholesterol (TC) and Triacylglycerols (TAGs) levels were analyzed. Low Density Lipoprotein (LDL) cholesterol was calculated using Friedewald's formula. Dyslipidaemia includes either low HDL cholesterol or hypertriglyceridaemia or both. Total of 544 subjects were selected and the response rate was 95.3% (511). In this study sample, 224 (43.8%) were males. Mean age of the study population was 45.65 ( $\pm 14.46$ ) years. Mean values of TC, TAG, HDL and LDL cholesterol levels of the study population were 146.23 ( $\pm 38.62$ ), 105.53 ( $\pm 68.1$ ) 34.46 ( $\pm 9.67$ ) and 94.32 ( $\pm 35.63$ ) mg/dL, respectively. Prevalence of hypertriglyceridaemia ( $\geq 150$  mg/dL) and low HDL cholesterol ( $< 40$  mg/dL in males,  $< 50$  mg/dL in females) was 25% (n=128; 95% CI: 21.3-29) and 79.3% (n=405; 95% CI: 75.5-82.7), respectively. In this study, 8.9 and 9.4% of males and females had hypercholesterolaemia (TC $> 200$  mg/dL). High levels of LDL cholesterol (LDL $> 150$  mg/dL) was found in 7.6% (n=39) of the subjects. Prevalence of dyslipidaemia was 81.0% (n=414; 95% CI: 77.3-84.3) and it was 81.3% (95% CI: 75.5-86.1) in males and 80.5% (95% CI: 75.4-84.9) in females. About 25% of the study subjects (n=119) had both low HDL cholesterol and hypertriglyceridaemia whereas 69% (n=286) had only low HDL level and 1.9% had only hypertriglyceridaemia. TAG (p $< 0.001$ ), TC (p $< 0.001$ ) and LDL cholesterol (p=0.019) levels among the subjects were significantly increased with increasing age. It could be concluded that among Jaffna population, 4 out of 5 had dyslipidaemia mainly due to low HDL cholesterol.