

## **A preliminary study on the prevalence of cardiovascular disease risk factors in selected rural communities in samarahan and kuching division, Sarawak, Malaysia.**

### ABSTRACT

**Background:** It is important to understand the prevalence of risk factors for cardiovascular disease, especially in a rural setting. **Methods:** A cross-sectional study was carried out in 238 rural households located in the Kuching and Samarahan divisions of Sarawak among individuals aged 16 years and above. Anthropometric measurements, blood levels of glucose and cholesterol, and blood pressure were collected. **Results:** Prevalence of blood pressure in the hypertensive range was 43.1%. The highest rates of blood pressure in the hypertensive range were found in individuals aged above 60 years (38.6%) and 50-59 years old (31.8%). Age was one factor found to be significantly associated with blood pressure in the hypertensive range ( $P < 0.001$ ). Prevalence of obesity was 49.0%. The highest prevalence of obesity was found among those aged 40-49 years (41.9%) and 50-59 years (29.9%). Gender was significantly associated with obesity ( $P = 0.004$ ). The prevalence of blood cholesterol at risk was 21.6%, and the highest rate was found in the 40-49 years age group (34.0%). Fifty percent of respondents were found to have hyperglycaemia, with the highest prevalence in the 50-59 years age group (37.5%). A significant association was found between obesity, blood pressure in the hypertensive range and blood glucose level. When compared with non-obese individuals, those who were obese were more likely to have blood pressure in the hypertensive range and hyperglycaemia. **Conclusion:** The risk of developing lifestyle-related diseases is no longer based on geographical or socio-economic factors.

**Keyword:** Blood pressure; Cardiovascular diseases; Hypercholesterolaemia; Hyperglycaemia; Medical screening and epidemiology; Risk factors; Rural communities.