

Non-Communicable Diseases, cardiovascular risk and factors associated with cardiovascular risk among adults attending a rural hospital in Northern Sri Lanka

M. N. Perera¹, D. M. S. Jayawardene²

¹*National Hospital of Sri Lanka, Ministry of Health, Sri Lanka*

²*Department of Community Medicine, Faculty of Medicine, University of Colombo, Sri Lanka*

Non-Communicable Diseases (NCD) account for 83% of deaths in Sri Lanka, with cardiovascular disease accounting for approximately one-third of NCD-related mortality and is thus a major public health concern. The prevalence of cardiovascular disease is 6.76%. There is limited data regarding NCDs among adults in underserved areas. This study aims to determine the proportion of people with NCDs, to determine the cardiovascular risk according to the World Health Organization cardiovascular risk stratification, and determine the factors associated with cardiovascular risk among adults attending Primary Medical Care Unit (PMCU) Bogaswewa, a rural hospital. Secondary data of 587 villagers who attended the PMCU from a screening programme carried out at the hospital were analyzed. Bivariate (chi-square) and multivariate analysis was carried out to determine the factors associated with cardiovascular risk. A value of $p < 0.05$ was taken as statistically significant. Of the total population 12.1% were newly diagnosed, contributing to an overall NCD prevalence of 58.3%. The majority (67.3%) had a low cardiovascular risk, while 27.2% had a moderate risk, and only 5.5% had a high risk. These were categorized further into two groups as having a low risk (67.3%) and high risk (32.7%), the latter combining both moderate and high risk categories. Bivariate analysis showed that those above 60 years ($p > 0.001$), males ($p > 0.001$), those with positive family history ($p > 0.001$), elevated blood pressure ($p > 0.001$), alcohol consumers ($p = 0.030$), tobacco smokers ($p > 0.001$), betel chewers ($p = 0.017$), leading a sedentary lifestyle ($p = 0.002$) and elevated fasting blood sugar and serum creatinine levels ($p > 0.001$) were at a high risk for cardiovascular disease. Following multivariate analysis age ($p > 0.001$), hypertension ($p > 0.001$), smoking ($p > 0.001$) and fasting blood sugar ($p > 0.001$) were found to be strong predictors of cardiovascular risk. Although most of the rural population had a low cardiovascular risk, the majority were found to have a NCD. This highlights the importance of increased screening, focused risk assessment and targeted interventions for this and other rural communities.

Keywords: *Non-Communicable Diseases, Cardiovascular Risk Stratification, Rural health, Hypertension, Primary care*