Prevalence and socio-demographic correlates of diabetes mellitus among participants of a non-communicable disease screening programme

Wijenayaka PRC[1], Lakmini ANGP[1], Nethmini KKM[1], Aravinda MGNP[1], Sanjeewa BHU[2], Sirithunga C[2], Wijesinghe CJ[1], De Silva PV[1]

[1]*Department of Community Medicine, Faculty of Medicine, University of Ruhuna , Sri Lanka.*
[2]*Regional Director of Health Services, Galle ,Sri Lanka.*

Introduction
Diabetes mellitus is a common non-communicable disease (NCD), affecting millions of people worldwide. Early detection is crucial for its management as early interventions are necessary to retard the progression of the disease. Diabetes screening is an element of the NCD screening services offered by the Ministry of Health, Sri Lanka. The aim of the study was to determine the prevalence and selected correlates of diabetes among voluntary participants of a NCD screening programme.

Methods
Data used in this study were extracted during a NCD screening programme conducted by the Department of Community Medicine, Faculty of Medicine and NCD Unit, RDHS office, Galle. Participants aged 35 years and above (n=1029) were screened for diabetes and classified into three groups based on random blood glucose according to American Diabetic Association (ADA) guidelines. (RBG level; normal <140mg/dL, pre-diabetic 140-200 mg/dL and diabetic >200mg/dL). The Chi-square test was used to assess the association of blood glucose abnormalities with participants' basic demographic characteristics and body mass index (BMI). The analysis was done using SPSS statistical software.

Results
Majority of the participants was females (57.4%) from rural areas (71.2%) and aged between 40-59 years. Approximately 90% of the participants had normal RBG levels, whereas 6.8% and 2.9% had RBG levels falling into pre-diabetic and diabetic ranges, respectively. There was no urban/rural, gender or age disparity in the prevalence of diabetes among participants. However, the risk of developing diabetes was significantly higher among overweight/obese persons (P<0.05) when BMI was categorized according to cut-off threshold for public health action in Asian populations, proposed by WHO. This association was not observed when BMI was classified according to the international cut-off thresholds.

Conclusions
Prevalence of diabetes and pre-diabetes was found to be low in this sample. It is recommended that individuals with a BMI of ≥23 who are at a higher risk of developing diabetes must be encouraged to participate in NCD screening. It is important to increase the awareness and provide wider availability of services.