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Prevalence of known diabetes in Sri Lanka: results from the Sri Lanka demographic and health survey 2016

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Diabetes is a major global public health burden. According to International Federation of Diabetes (IDF), Sri Lanka shows an increasing prevalence of diabetes. There is a paucity of contemporary data on the prevalence of diabetes in Sri Lanka. Therefore, this study was conducted to estimate the national and provincial level prevalence of diabetes and establish the demographic risk factors of diabetes in Sri Lanka. We used data from the Sri Lanka Demographic and Health Survey (SLDHS) 2016 conducted by the Department of Census and Statistics Sri Lanka. A total of 106,466 individuals were included in this survey. From the survey data, a total of 71066 individuals aged 20 years and older were identified from all the nine provinces and the diabetes status in the questionnaire was used to define people with known diabetes. Age, gender, ethnicity, religion, education level, smoking history, marital status, urban or rural location, province of residence was included as potential exposures. The outcome was defined as self-reported prevalence of diabetes status. Age adjusted prevalence values were obtained by multiplying the crude age-specific prevalence of diabetes by age-specific weights. Weights were calculated using the Census of Population and Housing (CPH) 2012 data. Multivariable logistic regression was fitted, and Odds Ratios (ORs) were derived to examine the relationship between the covariates and outcome (diabetes status). The age adjusted national prevalence of diabetes is 10.6%. The prevalence of diabetes was higher in women than in men. Provinces with higher GDP (Gross Domestic Product), seemed to have a higher prevalence of diabetes. Prevalence of diabetes was higher in urban residents (14.39%: 95% CI: 13.72% -15.06%) compared to their counterparts in rural (11.38%: 95% CI: 11.10%-11.66%) and estate areas (9.15%: 95% CI: 8.25%-10.04%). The multivariable logistic regression analysis showed that age, urban area, moors, females, province, and high level of education as independent risk factors for diabetes. Moors had 43% increased odds of diabetes compared with Sinhalese (OR:1.43, 95% CI 1.30,1.58). Compared to residing in Rural areas, Urban sector had 19% increased odds of diabetes (OR:1.19, 95% CI (1.11, 1.28)). Females' risk of getting diabetes was 72% higher than males (OR:1.72, 95% CI 1.62,1.82). Individuals who had a high level of education had 10% of increased risk of getting diabetes (OR:1.1,95% CI 1.04,1.17) than others. People living in Western province, were 64% more likely to have diabetes compared to other provinces. Smoking status of the individuals was not related to diabetes in this analysis. The findings clearly show that known diabetes prevalence in Sri Lanka varies between provinces, with most urban and economically developed regions showing a high prevalence of known diabetes. Given the limited resources available in the health system in Sri Lanka, this study highlights how the population can be stratified for efficient optimization of diabetes care in the country.

Keywords: Diabetes, Prevalence, Sri Lanka, Urban, Rural

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