

DS NON-COMMUNICABLE DISEASES (INCLUDING CANCER, CVD, DIABETES, ORAL HEALTH)

Disparities in prevalence of metabolic syndrome: A cross-sectional analysis of Indian adults

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Background:

Metabolic syndrome (MS) is a cluster of risk factors: central obesity, a low level of high-density lipoprotein cholesterol, high levels of triglyceride, fasting glucose, and blood pressure. Individuals with MS have an increased risk for cardiovascular disease and diabetes. South Asians, including Indians, generally have higher rates, earlier onset, and severe forms of cardiovascular diseases and the associated risk factors compared to other ethnic groups. This study assessed the prevalence of MS in an adult South Indian population, and further examined socio-economic, gender and rurality disparities.

Methods:

We analyzed data from 7,697 adults aged between 20 and 76 years participating in the baseline PURSE-HIS study, a community-based cross-sectional study conducted in India in 2012. Socioeconomic status was derived from summary scores of three variables: family income, education and occupation. Univariate and multivariate logistic regressions were conducted to find the association between behavioral risk factors and metabolic syndrome, after adjusting for age, sex, rurality and socioeconomic status.

Results:

The overall prevalence of metabolic syndrome was 36.3%, with significant gender difference (38.3% for women vs. 33.8% for men, $P < 0.01$). Women in semi-urban areas were twice as likely to have metabolic syndrome compared to men in urban areas (OR = 2.0, 95%CI: 1.2 to 3.1, $p < 0.01$). Women in higher socioeconomic group were more than four times likely to have metabolic syndrome compared to men in lower socioeconomic group (OR = 4.2, 95%CI: 2.3 to 7.6, $p < 0.01$).

Conclusions:

The study emphasizes the need of preventative and curative interventions focused on low-socioeconomic populations, particularly women who reside in non-urban areas. The findings have important implications for the USA because there are 2.4 million foreign-born population from India, making it the second-largest immigrant group in the USA after Mexicans.

Key messages:

- Low socioeconomic population and women residing in non-urban areas are at higher risk for metabolic syndrome.
- Preventative and curative interventions focused on low-socioeconomic populations should be prioritized.