

**Title: Prevalence and determinants of hypertension in South-Asian Urban Communities: findings from Demographic and Health Surveys (DHS) data of South Asian countries**

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**Abstract:** Hypertension increases risk of stroke and other cardiovascular diseases, however, its prevalence and determinants in South Asian urban communities using country representative community-based datasets is lacking. This study evaluated prevalence of hypertension and its determinants among urban residents of three South Asian countries. Urban population data from demographic and health surveys in Bangladesh, India, and Nepal were extracted. Hypertension prevalence was defined as systolic/diastolic blood pressure 140/ 90 mmHg. Age, education, wealth, physical activity, alcohol, BMI were considered as risk factors associated with the increased risk of hypertension. We performed binary logistic regression and calculated adjusted Odds Ratios (AOR) with 95% confidence interval (CI) to assess factors related to hypertension. Hypertension prevalence was 37.4% in India, 25.1% in Bangladesh and 18.4% in Nepal. Prevalence increased with age in all settings. Females had reduced odds of hypertension in Bangladesh (AOR 0.75; CI: 0.69, 0.81) and Nepal (AOR 0.62; CI: 0.54, 0.71), but higher risk in India (AOR 2.54; CI: 2.45, 2.63). Low education, caffeine consumption, obesity was associated with higher prevalence of hypertension in all three countries. Smokers had increased odds of hypertension in India (AOR 1.11; CI: 1.06, 1.15) and Nepal (AOR 1.23; 1.02, 1.47). Overall, hypertension prevalence is high in all three countries. Modifiable socioeconomic and lifestyle factors (education, wealth index, smoking status, caffeine consumption and BMI) associated with hypertension. Comprehensive hypertension specific and sensitive interventions (including behavioral modification treatments and timely screening and access to health care) are urgently needed to prevent and control hypertension among urban populations in South Asia.

**Key words:** Hypertension, South Asia, Urban population, Determinants, Prevalence, Cardiovascular risk factors, Logistic regression, Lifestyle factors

[https://www.nature.com/articles/s41371-023-00879-x#:~:text=Hypertension%20prevalence%20was%2037.4%25%20in,CI%3A%202.45%2C%202.63\).](https://www.nature.com/articles/s41371-023-00879-x#:~:text=Hypertension%20prevalence%20was%2037.4%25%20in,CI%3A%202.45%2C%202.63).)