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## Prevalence of multimorbidity and its correlates among older adults in Eastern Nepal

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## **Abstract**

**Background:** The number of people with multimorbidity is surging around the world. Although multimorbidity has been introduced in policy and practice in developed countries, developing countries like Nepal have not considered it as a matter of public health urgency due to the lack of enough epidemiological data. Multimorbidity profoundly affects older adults' wellbeing; therefore, it is crucial to estimate its prevalence and determinants. This study aimed to estimate the prevalence of multimorbidity among older adults in Eastern Nepal and identify its correlates.

**Methodology:** A community-based cross-sectional survey was conducted in three districts of Eastern Nepal. Data were collected between July and September 2020, among 847 Nepali older adults, aged 60 and older, where study participants were recruited through a multi-stage cluster sampling technique. Semi-structured interviews were conducted at the community settings to collect data. Logistic regression assessed correlates of multimorbidity. SAS 9.4 was used to run all statistical tests and analyses.

**Results:** More than half (66.5%) of the participants had at least one of the five non-communicable chronic conditions; hypertension (31.6%), osteoarthritis (28.6%), chronic respiratory disease (18.0%), diabetes (13.5%), and heart disease (5.3%). The prevalence of multimorbidity was 22.8%. In the adjusted model, increased age (for 70–79 years, OR: 3.11, 95% CI: 1.87–5.18; for 80 + years, OR: 4.19, 95% CI: 2.32–7.57), those without a partner (OR: 1.52, 95% CI: 1.00–2.30), residing in urban areas (OR: 1.71, 95% CI: 1.16–2.51), and distant from health center (OR: 1.66, 95% CI: 1.04–2.64) were significantly associated with multimorbidity.

**Conclusions:** This study found one in five study participants had multimorbidity. The findings will assist policymakers and stakeholders in understanding the burden of multimorbidity among the older population and identifying the groups in most need of health promotion intervention. Future interventions may include developing horizontal multimorbid approaches and multisectoral strategies specifically tailored to meet the needs of those populations.

Keywords: Nepal, Older adults, Multimorbidity, NCDs, Chronic diseases

## **Background**

Nepal, a South Asian country between India and China, is concurrently facing demographic and epidemiological transition. Demographically, the population of older

adults, which comprises 8.1% (2.5 million) of the total population, is increasing at a rate (3.5%) greater than the national population growth rate (1.35%) [1]. The percentage of older adults aged 60 years and over is predicted to rise from 8.6 in 2015 to 10.8 in 2030 [2]. Epidemiologically, Nepal is transitioning from a historically high burden of infectious diseases to chronic non-communicable diseases. NCDs contributed to 58.7% of the total burden of disease in 2017 with cardiovascular disease.

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