



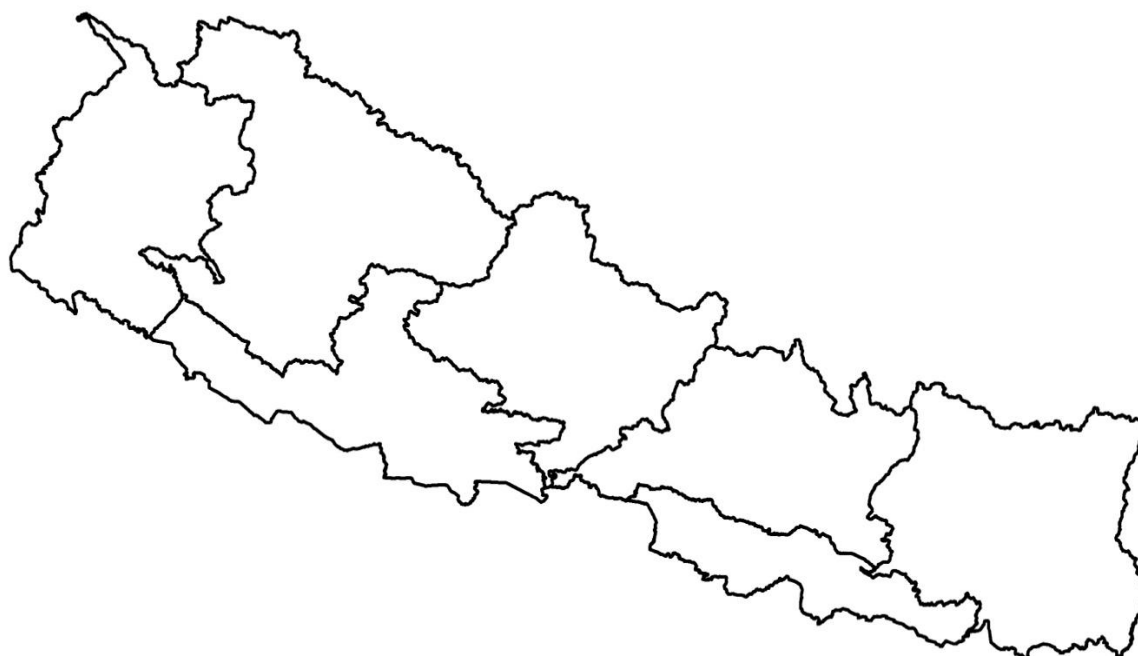
# Non-communicable Diseases in Nepal

Research Roundup September 2022

*Making non-communicable diseases a national priority*

# Non-communicable Diseases in Nepal-Research Roundup

September 2022



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## Roundup Summary

For the month of September 2022, our scoping on non-communicable diseases in Nepal found 13 published articles. The majority of the studies were cross-sectional studies and, covering the topic of mental health, hypertension, diabetes, cancer, and cardiovascular disease.

### Health sector readiness for the prevention and control of non-communicable diseases: A multi-method qualitative assessment in Nepal

**DOI:** <https://doi.org/10.1371/journal.pone.0272361>

**Context:** Although non-communicable diseases (NCDs) constitute a major public health problem in Nepal, how best to address this has not received much attention.

**Methodology:** The study followed a multi-method qualitative approach, using a review of policy documents, focus group discussions (FGDs), and in-depth interviews (IDIs). Content analysis was performed using the WHO health system building blocks framework.

**Key message:** This study concluded that there is a critical gap in the formulation and implementation of NCD-targeted policies and community-based programs—notably with regards to implementing evidence-based interventions to promote healthy diets and physical activity and to strengthen preventive interventions concerned with tobacco and alcohol consumption.

### Cervical cancer screening utilization, and associated factors, in Nepal: a systematic review and meta-analysis

**DOI:** <https://doi.org/10.1016/j.puhe.2022.06.007>

**Context:** Cervical cancer is the fourth most common cancer in women. Although women remain asymptomatic for many years after acquiring HPV infection, the pathological changes can be detected by screening, and treatment of precancerous stages helps prevent progression into cancer.

**Methodology:** This was a systematic literature review and meta-analysis that included 17 studies.

**Key message:** This review reported that cervical cancer screening utilization (16%) is more than four times lower than the national target (70%) in Nepal. Multiple barriers such as low levels of knowledge and embarrassment are associated with cervical cancer screening utilization. Health personnel's gender, counseling, and privacy of screening services were commonly reported, facilitators.

## Anxiety and depressive symptoms among home isolated patients with COVID-19: A cross-sectional study from Province One, Nepal

**DOI:** <https://doi.org/10.1371/journal.pgph.0001046>

**Context:** Home-isolated patients infected with COVID-19 might be at increased risk of developing mental health problems.

**Methodology:** This was a cross-sectional study conducted between February 17, 2021, to April 9, 2021, in Province One of Nepal. A total of 372 home-isolated patients from Province One were phone interviewed in the study. Anxiety and depression were measured using a 14-items Hospital Anxiety and Depression Scale (HADS).

**Key message:** Among the participants, 74.2% and 79% had symptoms of anxiety and depression, respectively. Watching television was significantly associated with lower odds of experiencing symptoms of anxiety and depression. Females had significantly higher odds of having depression symptoms compared to males while ever married, those with COVID-19-related complications, and those taking medicine for the treatment of COVID-19 symptoms had a higher likelihood of exhibiting symptoms of anxiety.

## Double burden of malnutrition in Nepal: A trend analysis of protein-energy malnutrition and High Body Mass Index using the data from Global Burden of Disease 2010-2019

**DOI:** <https://doi.org/10.1371/journal.pone.0273485>

**Context:** The co-existence of undernutrition and over nutrition is a global public health threat. Adults with obesity are at increased risk of developing non-communicable diseases (NCDs).

**Methodology:** This study analyzed the secondary data using the Institute for Health Metrics and Evaluation (IHME)'s Global Burden of Disease (GBD) database.

**Key message:** This study found that undernutrition is declining but still prevalent, while obesity/overweight is increasing steadily. The prevalence of overweight/obesity is low in under-five children, but undernutrition remains highest in that age group. The dual burden of malnutrition is alarming and should be taken into consideration. Public health interventions should be planned to emphasize a healthy diet and lifestyle.

## Association between socioeconomic positions and overweight/obesity in rural Nepal

**DOI:** <https://doi.org/10.3389/fnut.2022.952665>

**Context:** Understanding the role of socioeconomic status (SES) in explaining food behavior that determines an individual's body weight is important.

**Methodology:** This cross-sectional study analyzed data from 260 participants aged  $\geq 18$  years and attending a rural health center in Dolakha, Nepal.

**Key message:** The age-standardized prevalence of overweight/obesity was higher for individuals with higher education (23%) and high-income (32%) and those who were unemployed (42%). Socioeconomic factors, education, and income were positively associated with overweight/obesity prevalence in rural Nepal.

## Rheumatic heart disease in the heart of Himalayas

**DOI:** <https://doi.org/10.1016/j.amsu.2022.104672>

**Context:** Rheumatic heart disease (RHD) is one of the most common acquired heart diseases in low- and middle-income countries including Nepal, affecting children and young people.

**Methodology:** This is a perspective.

**Key message:** Authors concluded that RHD is still a major burden in low- and middle-income countries like Nepal, especially among children and young people. Effective programs on prevention and accessible cardiac treatment should be the priority to address the burden of RHD.

## Daily stressors and mental health following disaster: A school-based assessment of adolescent disaster survivors in China and Nepal

**DOI:** <https://doi.org/10.1002/jts.22876>

**Context:** Post-disaster daily stressors have significant consequences for mental health but are rarely investigated in child and adolescent populations.

**Methodology:** A school-based, cross-sectional study was conducted among adolescents living in disaster-affected areas of southern China and Nepal.

**Key message:** Post-traumatic stress disorder was reported by 22.7% of participants and was higher among Nepali adolescents. Similarly, depressive symptoms were reported by 45.2% of the sample and were higher among Nepali adolescents. Across all settings,

disaster-related trauma exposure was a significant risk factor for PTSS, depressive, and anxiety symptoms.

### Psychometric properties of Nepalese preschool anxiety scale among preschool children: A cross-sectional study

**DOI:** <https://doi.org/10.1002/hsr2.808>

**Context:** Anxiety disorders in children are common and affect about 5%–17% of children.

**Methodology:** A descriptive cross-sectional study was conducted among 680 mothers at seven conveniently selected schools in Kathmandu, Nepal.

**Key message:** This study concluded that the Nepali version of the Preschool Anxiety Scale (PAS) demonstrated fair psychometric properties, supporting its utility in screening and assessing a broad range of anxiety symptoms in Nepalese preschoolers.

### Perception of Cigarette Graphic Health Warnings and Its Impact on Smoking Behavior: A Cross-Sectional Study among Current Smokers of Western Part of Nepal

**DOI:** <https://doi.org/10.1155/2022/5787856>

**Context:** Health warning labels are regarded as one of the most prominent and cost-effective communication.

**Methodology:** A descriptive cross-sectional community-based study was carried out among 169 current smokers in Kushma municipality, Parbat, Nepal.

**Key message:** The study showed a favorable perception and positive impact on the smoking behavior of current smokers due to graphic health warnings. So, the implementation of regulations and standards regarding graphic health warnings on tobacco products should be monitored.

### Comparative study of serum uric acid level in diabetic, pre-diabetic and non-diabetic individuals in a tertiary care center of Nepal

**Link:** <https://www.jcmc.com.np/jcmc/index.php/jcmc/article/view/1159>

**Context:** Diabetes mellitus is a global public health problem, with its prevalence escalating each decade. Serum uric acid is said to have a strong correlation with diabetes and might contribute to its risk.

**Methodology:** This was a hospital-based cross-sectional study conducted among 320 patients visiting the medicine OPD of Universal College of Medical Sciences, Nepal.

**Key message:** This study found that serum uric acid levels did not vary significantly among diabetic, pre-diabetic, and non-diabetic individuals. Different modifiable and non-modifiable risk factors need to be considered in hyperuricemia in diabetic patients.

### Post-stroke depression among stroke survivors attending therapy centers in Chitwan

**Link:** <https://jcmc.com.np/jcmc/index.php/jcmc/article/view/1147>

**Context:** The neuropsychiatric side effect of post-stroke depression is one of the most prevalent in stroke survivors.

**Methodology:** This was a hospital-based cross-sectional study carried out in different therapy centers in Chitwan, Nepal. A total of 137 stroke survivors were included in the study.

**Key message:** It was found that 54.70% (75) stroke survivors suffered from any kind of depression. Depression status among stroke survivors was significantly associated with age group, educational status, past employment status, past alcohol intake, and current BMI status.

### Prehypertension and its predictors among older adolescents: A cross-sectional study from eastern Nepal

**DOI:** <https://doi.org/10.1371/journal.pgph.0001117>

**Context:** Adolescent prehypertension is a strong predictor of hypertension in adults and is now considered for cardiovascular intervention or risk reduction.

**Methodology:** A cross-sectional study was conducted among a total of 806 students of grades 11 and 12 in three districts in eastern Nepal. WHO STEPwise approach to the non-communicable disease risk factor surveillance (STEPS) instrument was used as a study tool.

**Key message:** Prehypertension was found in 20.8% (Males 24.6% Vs Females 18.0%), while 7.1% of them were hypertensive (Males 9.2% Vs 5.4% females). Similarly, obesity and central obesity were seen among 6.3% and 17.7% of the respondents respectively. Age, sex, ethnicity, and obesity were found to be significantly associated with prehypertension. This study recommended careful consideration and identification of relevant strategies to reduce the burden of prehypertension via school-based interventions to reduce the modifiable risk factors.



## Prevalence and Demographic Profile of White-coat Hypertension in the Patients Visiting a Tertiary Care Center in Eastern Nepal

**Link:** <https://www.nepjol.info/index.php/nmmj/article/view/48522>

**Context:** There is unequivocal evidence showing that in a hospital environment BP levels are usually different from measures found in other settings.

**Methodology:** This was a single-center descriptive cross-sectional study conducted among 50 referred for 24-hour Ambulatory BP monitoring in BPKIHS, Dharan, Nepal.

**Key message:** The prevalence of white-coat hypertension was found among 19 (32%) participants, while 31(62%) of them had sustained hypertension. White-coat hypertension was more common in male patients and in the middle age group 36-54 years.



We thank you all for joining our initiative to promote evidence-informed policymaking and promote public awareness of the non-communicable disease (NCDs) and related issues in Nepal- we are committed to staying up to date with the latest NCD research in Nepal.

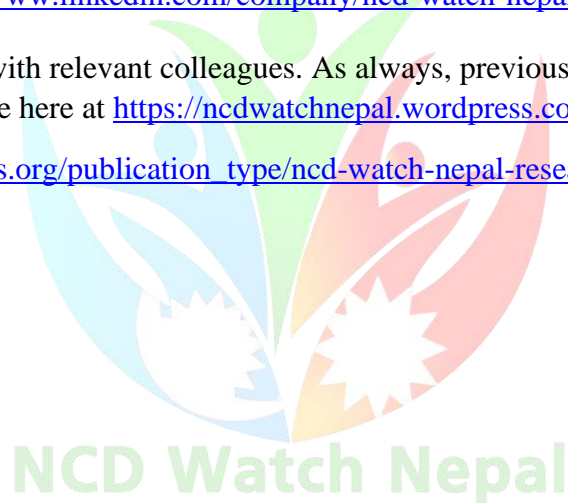
This issue covers a summary of scientific publications on NCDs in Nepal for the month of September 2022.

Should you have colleagues who'd like to receive these updates via email ([ncdwatchnepal@gmail.com](mailto:ncdwatchnepal@gmail.com))

Individual summary of the round-up is also available on our social media outlets:

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**Let's unite to beat NCDs.**  
*#actonNCDs #beatNCDs*