



**NCD Watch Nepal**

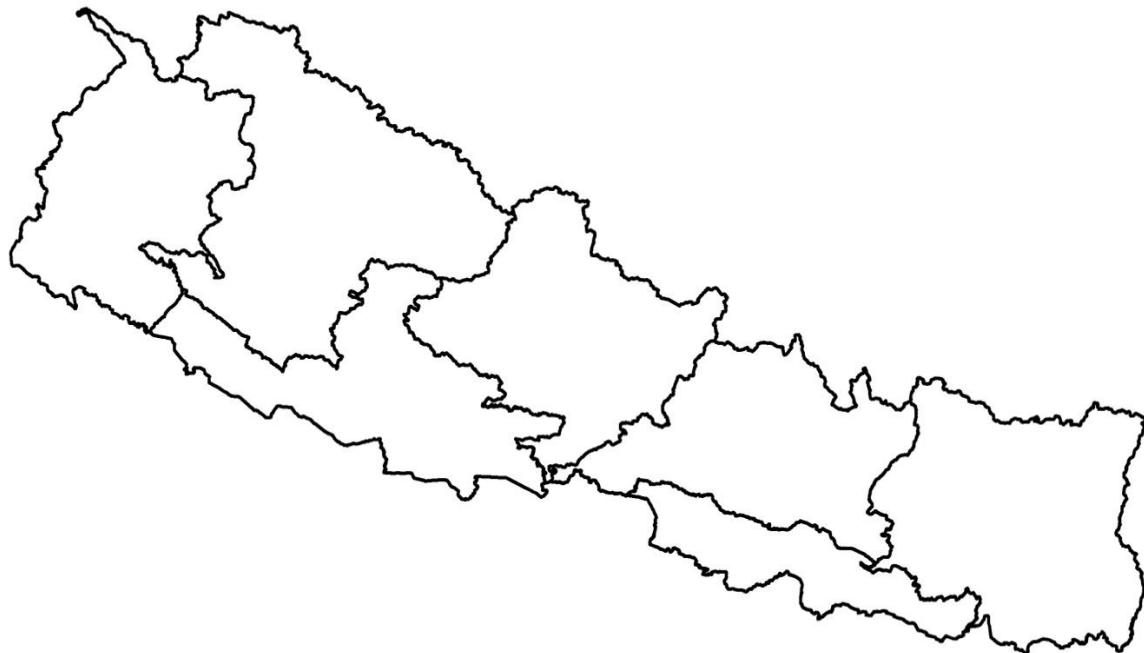
## Non-communicable Diseases in Nepal

**Research Roundup July 2022**

*Making non-communicable diseases a national priority*

# **Non-communicable Diseases in Nepal-Research Roundup**

**July 2022**



**VOLUME III**  
**ISSUE 7**

Suggested Citation:

NCD Watch Nepal: Non-communicable Diseases in Nepal-Research Roundup July 2022. Adhikari TB, Paudel K, Bhusal S, Khanal P Neupane D. vol. III, issue 7 Kathmandu Nepal: 2022: 8.16.

<b>Roundup Summary.....</b>	<b>4</b>
<i>Tobacco Use and Its Associated Factors among Undergraduate Public Health Students in Kathmandu Valley, Nepal</i>	4
<i>Cardiovascular disease risk factors distribution and clustering across different geographic levels in Nepal.....</i>	<i>4</i>
<i>Prevalence of latent structural heart disease in Nepali schoolchildren .....</i>	<i>5</i>
<i>Anxiety and depression among living kidney donors in tertiary care hospital of low resource country setting Nepal .</i>	<i>5</i>
<i>Cervical cancer screening utilization, and associated factors, in Nepal: a systematic review and meta-analysis .....</i>	<i>5</i>
<i>Poor glycemic control, cardiovascular disease risk factors and their clustering among patients with type 2 diabetes mellitus: A cross-sectional study from Nepal .....</i>	<i>6</i>
<i>Fear, Stigma and Othering: The Impact of COVID-19 Rumours on Returnee Migrants and Muslim Populations of Nepal .....</i>	<i>6</i>
<i>Effects of intervention on lifestyle changes among coronary artery disease patients: A 6-month follow-up study.....</i>	<i>7</i>
<i>Prevalence of hypertension and its associated factors among adults living in Pokhara metropolitan city.....</i>	<i>7</i>
<i>Perspectives on Smoking among Female Smokers: A Qualitative Study from Kathmandu, Nepal .....</i>	<i>7</i>
<i>Anxiety among Pregnant Women Attending Obstetrics Unit of a Tertiary Care Centre during the COVID-19 Pandemic: A Descriptive Cross-sectional Study .....</i>	<i>8</i>
<i>Prevalence of Hypertension and its Associated Risk Factors Among Military Personnel of Nepali Army in Selected Military Barracks of Nepal.....</i>	<i>8</i>
<i>Anxiety and Depression among Patients with Chronic Kidney Disease Undergoing Haemodialysis in a Tertiary Care Centre: A Descriptive Cross-sectional Study .....</i>	<i>9</i>
<i>Depression among Online Respondent Oral Healthcare Workers during COVID-19 Pandemic: A Descriptive Cross-sectional Study.....</i>	<i>9</i>
<i>Diabetes Mellitus among Adult Outpatients Visiting a Tertiary Care Centre: A Descriptive Cross-sectional Study ...</i>	<i>9</i>
<i>Quality of Media Reporting of Suicide in Nepal.....</i>	<i>10</i>



**NCD Watch Nepal**

## Roundup Summary

For the month of July 2022, our scoping on non-communicable diseases in Nepal found 16 published articles. Majority of the studies were cross sectional studies and, covering the topic of mental health, hypertension, COPD, diabetic, cancer and cardiovascular disease.

### Tobacco Use and Its Associated Factors among Undergraduate Public Health Students in Kathmandu Valley, Nepal

**DOI:** <https://doi.org/10.1155/2022/1495779>

**Context:** Public health students play a significant role in educating communities about the hazards of tobacco smoking, tobacco use prevention, control, and cessation efforts.

**Methodology:** A web-based cross-sectional survey was conducted among 386 undergraduate public health students in Kathmandu valley, Nepal, using the Global Health Professions Student Survey (GHPSS) questionnaire.

**Key message:** This study found that a total of 16.8% of students were current cigarette smokers, 39.9% had ever smoked cigarettes, and 62.2% had smoked their first cigarettes during adolescence. Male students, students of higher age, students belonging to the non-Brahmin/Chhetri ethnic group, those staying without family, those with a parental history of tobacco use, and friends with smoking habits were more likely to be current smokers.

### NCD Watch Nepal

### Cardiovascular disease risk factors distribution and clustering across different geographic levels in Nepal

**DOI:** <https://doi.org/10.1002/ajhb.23787>

**Context:** It is imperative to understand the variation of risk factors across different geographic regions in an effort to reduce the burden of cardiovascular diseases (CVD).

**Methodology:** Data of 14 418 adults (15 years and above) from a nationally representative survey were analyzed to estimate the distribution of four major risk factors (high blood pressure, overweight, obesity, and smoking) of cardiovascular diseases.

**Key message:** Higher prevalence of all four CVD risk factors was found in the richest quintile, people living in the hilly regions, most noticeably among residents of metropolitan cities and in Gandaki, Bagmati, and Province 1.

## Prevalence of latent structural heart disease in Nepali schoolchildren

**DOI:** <https://doi.org/10.1017/s1047951121004479>

**Context:** Structural heart disease (SHD) contributes significantly to the health burden of children.

**Methodology:** This was a school-based cross-sectional echocardiographic screening study among 6573 children 5–16 years of age.

**Key message:** Structural heart disease was detected in 14.0 per 1000 children (95% CI 11.3–17.1) and was congenital in 3.3 per 1000 (95% CI 2.1–5.1) and rheumatic in 10.6 per 1000 (95% CI 8.3–13.4). Rates of rheumatic heart disease were higher among children attending public as compared to private schools (OR 2.8, 95% CI 1.6–5.2).

## Anxiety and depression among living kidney donors in tertiary care hospital of low resource country setting Nepal

**DOI:** <https://doi.org/10.1016/j.amsu.2022.104119>

**Context:** Living kidney donors continue to have negative psychosocial effects after donation.

**Methodology:** This was an observational, cross-sectional study conducted among 147 patients who had undergone donor nephrectomy and had completed 6 months of post-donation period. at Tribhuvan University Teaching Hospital (TUTH), Kathmandu, Nepal. Anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (HADS).

**Key message:** The prevalence of anxiety and depression among live kidney donors were 27.9% and 6.2% respectively. Gender, parental relations, occupation, and educational status were associated with symptoms of anxiety. This study stressed that routine evaluations of kidney donors should include assessments of depression and other emotional disorders.

## 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:** Comprehensive cervical cancer screening, treatment, and prophylactic vaccine for HPV would play an important role in reducing the high incidence of cervical cancer among Nepalese women.

**Methodology:** This was a systematic literature review and meta-analysis. A total of 17 studies were included in the review.

**Key message:** This study found that the pooled cervical cancer screening utilization proportion (using Pap smear test) among Nepalese women was 17% from the studies in the hospital settings, and 16% in the community. 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 as facilitators.

## **Poor glycemic control, cardiovascular disease risk factors and their clustering among patients with type 2 diabetes mellitus: A cross-sectional study from Nepal**

**DOI:** <https://doi.org/10.1371/journal.pone.0271888>

**Context:** To prevent morbidity and mortality among patients with type 2 diabetes mellitus (T2DM), optimization of glycemic status and minimizing CVD risk factors are essential.

**Methodology:** This was a cross-sectional study conducted among 366 patients with T2DM in Tulsipur sub-metropolitan city of Nepal.

**Key message:** The prevalence of poor glycemic control was 66.4%. Similarly, the prevalence of smoking, alcohol users, inadequate fruit and vegetable intake, and physical inactivity were 18%, 14.8%, 98.1%, and 9.8% respectively. Clustering of two, three, four, five, and more than five risk factors was 12.6%, 30%, 30%, 19%, and 8.7%, respectively. Four or more risk factors clustering was significantly associated with gender, age, level of education, T2DM duration, and use of medication.



## **Fear, Stigma and Othering: The Impact of COVID-19 Rumours on Returnee Migrants and Muslim Populations of Nepal**

**DOI:** <https://doi.org/10.3390/ijerph19158986>

**Context:** Migrants and other marginalized groups have historically been targets of blame, scapegoating, and stigmatization during disease outbreaks.

**Methodology:** This was a qualitative study that included in-depth interviews with 15 returnee migrants, 15 Muslims from Kapilvastu and Banke districts of Nepal, eight interviews with media and health professionals, and representatives from migration organizations.

**Key message:** The study findings suggest that rumors and misinformation were fuelled by various media platforms, especially social media (e.g., Facebook, YouTube) during the initial months of the lockdown. This created a moral panic which led to returnee migrants and Muslim populations experiencing fear and social isolation.

## Effects of intervention on lifestyle changes among coronary artery disease patients: A 6-month follow-up study

**DOI:** <https://doi.org/10.1002/nop2.1212>

**Context:** Coronary artery disease is the leading cause of premature death and remains a major cause of disability-adjusted life years (DALYs) globally.

**Methodology:** This was a pre-test post-test control group design conducted in a single clinical center in Nepal. A total of 224 eligible patients were randomly assigned to either the usual care group or the intervention group at baseline. The lifestyle intervention consisted of a brief counseling session supplemented with informational leaflets.

**Key message:** A statistically significant effect of study group-by-time interaction for diet, adherence to medication, physical activity, and perceived stress was found at 6-month follow-up. Overall, greater improvement in lifestyle habits was found in the intervention group compared with the control group at a 6-month follow-up.

## Prevalence of hypertension and its associated factors among adults living in Pokhara metropolitan city

**DOI:** <https://doi.org/10.3126/jgmcn.v15i1.41388>

**Context:** Hypertension is the leading risk factor for premature death and disability worldwide, and it is the leading risk factor for mortality from cardiovascular diseases worldwide.

**Methodology:** This was a community-based cross-sectional study conducted among 293 adults aged 18 to 70 years in Pokhara metropolitan city, Nepal.

**Key message:** In this study, the prevalence of hypertension was found to be 35.5%. Age, gender, alcohol consumption, salt-adding habit, and body mass index were identified as significant factors for hypertension. Therefore, a community awareness program on hypertension and its preventive measures is a must in preventing dreadful complications.

## Perspectives on Smoking among Female Smokers: A Qualitative Study from Kathmandu, Nepal

**Link:** <https://www.nepjol.info/index.php/HPROSPECT/article/view/41312>

**Context:** The problem of smoking among females has not been well addressed in Nepal.

**Methodology:** A qualitative study was conducted among female smokers aged between 18-24 years using focus group discussion and individual interviews in different hotspots for smoking in Kathmandu valley, Nepal.

**Key message:** This study identified four major themes from the analysis -initiation of smoking, smoking behavior, reasons for smoking, and beliefs about smoking. Females preferred to smoke in groups and some were forced to smoke by their friends and smoked against their will until smoking became a habit. Other factors for them to smoke were stress, conflict, peer pressure, fashion, and education factors.

## **Anxiety among Pregnant Women Attending Obstetrics Unit of a Tertiary Care Centre during the COVID-19 Pandemic: A Descriptive Cross-sectional Study**

**Link:** <https://www.jnma.com.np/jnma/index.php/jnma/article/view/7259>

**Context:** The effect of the COVID-19 pandemic on the mental health of vulnerable populations like pregnant women should not be neglected.

**Methodology:** A descriptive cross-sectional study was conducted from 16 May 2020 to 30 July 2020 among 115 pregnant women attending the obstetrics unit of a tertiary care center in Nepal.

**Key message:** A total of 21 (18.26%) were found to have anxiety. This study recommended that preventive strategies with strict health protocols complemented by pregnancy counseling services need to be developed and implemented during the COVID-19 pandemic.

## **Prevalence of Hypertension and its Associated Risk Factors Among Military Personnel of Nepali Army in Selected Military Barracks of Nepal**

**Link:** <https://www.nepjol.info/index.php/MJSBH/article/view/37789>

**Context:** Hypertension is an important health issue among Military personnel because of their unique nature of duties and services.

**Methodology:** Cross-sectional study was conducted among 416 serving army personnel posted at four selected military barracks; Dhading, Birgunj, Lamjung, and Tanahun districts of Nepal.

**Key message:** Prevalence of hypertension and pre-hypertension was 13.4% and 37.3% respectively. Among the risk factors studied for hypertension; spouse's education, tobacco chewing, history of hypertension in father, and being overweight, were found to be statistically significant.

## Anxiety and Depression among Patients with Chronic Kidney Disease Undergoing Haemodialysis in a Tertiary Care Centre: A Descriptive Cross-sectional Study

**Link:** <https://www.jnma.com.np/jnma/index.php/jnma/article/view/7608>

**Context:** Chronic kidney disease is a global public health problem with psychological issues and other adverse issues like renal failure, cardiovascular disease, and premature deaths.

**Methodology:** A descriptive cross-sectional study was done among 96 patients with chronic kidney disease undergoing hemodialysis in the Department of Medicine, Nephrology unit of a tertiary care center in Nepal.

**Key message:** Among the total of 96 participants, the prevalence of anxiety and depression was found to be 68.75% and 77.08% of patients respectively.

## Depression among Online Respondent Oral Healthcare Workers during COVID-19 Pandemic: A Descriptive Cross-sectional Study

**Link:** <https://www.jnma.com.np/jnma/index.php/jnma/article/view/6421>

**Context:** COVID-19 outbreak brought unprecedent pressure on dental and oral health care workers leading to increased depression.

**Methodology:** A descriptive cross-sectional study was conducted from 24 June 2020 to 13 July 2020 among a total of 133 oral health care workers in a tertiary care center in Nepal.

**Key message:** The prevalence of depression was found to be 21.8%. This study emphasized the need for psychosocial intervention among oral health care professionals during health crises.

## Diabetes Mellitus among Adult Outpatients Visiting a Tertiary Care Centre: A Descriptive Cross-sectional Study

**Link:** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9297346/>

**Context:** Diabetes mellitus is a chronic metabolic disease characterized by elevated blood sugar levels and is a pandemic of public health importance.

**Methodology:** This was a descriptive cross-sectional study conducted among 385 outpatients visiting a tertiary care center in Nepal.

**Key message:** Among 385 adult outpatients, 4.42% had diabetes. The mean random blood sugar level of the diabetic patients was  $281.41 \pm 57.49$  mg/dl.

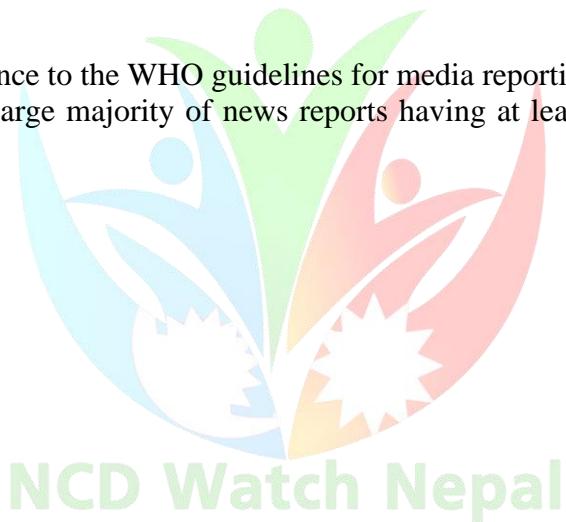
## Quality of Media Reporting of Suicide in Nepal

**DOI:** <https://doi.org/10.1155/2022/5708092>

**Context:** Suicide is a major public health concern. Sensible media reporting of suicide is one of the important prevention strategies.

**Methodology:** This was content analysis. A total of 165 English newspaper articles reporting suicide deaths in six English languages newspapers published in Nepal over the two-year duration were analyzed.

**Key message:** The adherence to the WHO guidelines for media reporting of suicide in Nepal was found to be poor, with a large majority of news reports having at least one potentially harmful media characteristic.



We thank you all for joining our initiative to promote evidence-informed policymaking and promote public awareness on 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 summary of scientific publications on NCDs in Nepal for the month of July 2022.

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

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

- ⇒ Twitter: <https://twitter.com/NCDWatchNepal>
- ⇒ Facebook: <https://www.facebook.com/NCDWatchNepal>
- ⇒ LinkedIn: <https://www.linkedin.com/company/ncd-watch-nepal>

Please join us and share with relevant colleagues. As always, previous editions of the round-up are available in our archive here at <https://ncdwatchnepal.wordpress.com/research-round-up/>

[https://nepalhealthfrontiers.org/publication\\_type/ncd-watch-nepal-research-roundup/](https://nepalhealthfrontiers.org/publication_type/ncd-watch-nepal-research-roundup/)



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