

HIGHLIGHT OF THIS ISSUE

Exposure to Solid and Non-Clean Cooking Fuels and the risk of Obesity, .. in Women of Reproductive Age

Introduction:

Solid fuel use remains widespread in Nepal, especially in rural households. While known to cause household air pollution, its wider effects on women's health have not been fully explored at a national level.

Key Message:

Women using solid fuels faced higher risks of anemia, depression, and anxiety. The study calls for urgent policy attention to promote clean energy use and safeguard the health of women in reproductive age.

Methodology:

A nationwide cross-sectional analysis was conducted using 2022 NDHS data on 4,129–6,992 women aged 15–49. Logistic regression models were used to assess associations between fuel type and multiple health outcomes.



Making non-communicable diseases a national priority

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Roundup Summary

In June 2025, our search on non-communicable diseases and mental health-related literature in Nepal yielded twenty-three published articles. Most of the studies covered non-communicable diseases, mental health, cancer, COPD, Health health, Sleep health, and physical activity.

Effectiveness of Antihypertensive Medication on Blood Pressure Reduction among Hypertensive Patients: A Pre-Post Study in Heart Hospital in Nepal

DOI: <https://doi.org/10.3126/jnhls.v4i1.80620>

Context: Hypertension is a major public health concern and a leading risk factor for cardiovascular diseases. Managing high blood pressure effectively is critical to reducing the burden of related complications.

Methodology: This pre-post intervention study was conducted among 50 hypertensive patients (19 females and 31 males). Blood pressure measurements were taken before and after administration of antihypertensive medication.

Key message: Antihypertensive medications significantly reduced both systolic and diastolic blood pressure in the study population, with large effect sizes observed across both male and female subgroups. These results support pharmacological treatment as a highly effective strategy in hypertension management for adults of both sexes.

Etiological Spectrum and Risk Factors of Heart Failure Among Patients Admitted in Bharatpur Hospital

DOI: <https://doi.org/10.3126/jnhls.v4i1.80618>

Context: Heart failure (HF) is a growing public health problem worldwide, particularly in low- and middle-income countries like Nepal.

Methodology: This cross-sectional descriptive study was conducted among 210 adult heart failure patients admitted to Bharatpur Hospital from January to December 2023. Data on demographics, clinical features, risk factors, and etiologies were collected through structured questionnaires and clinical evaluations, including echocardiography.

Key message: Ischemic heart disease and hypertensive cardiomyopathy were the most common causes of HF. The study also revealed a high prevalence of modifiable risk factors such as hypertension, diabetes, and physical inactivity, emphasizing the urgent need for community-level

prevention strategies and integrated cardiovascular risk management in primary care.

Social Stigma Towards People with Mental Illness: A Study Among Nepalese University Students

DOI: <https://doi.org/10.3126/dsaj.v19i1.80829>

Context: Social stigma against people with mental illness (PWMI) is shaped not only by individual attitudes but also by broader cultural norms, institutional practices, and power dynamics.

Methodology: This was a quantitative cross-sectional study conducted among 246 master's-level students at Tribhuvan University, Nepal. Data were collected using socio-demographic questions and validated tools (CAMI and RIB scales) to assess attitudes, along with data on mental health-related education/training and contact with PWMI.

Key message: Both education/training and contact with PWMI were significantly associated with more positive attitudes. Direct contact had a stronger effect than indirect contact. These findings align with the Link and Phelan model, showing that reducing stereotypes diminishes the perceived need for stigma, supporting stigma-reduction interventions in educational settings.

Awareness of Cancer among Adolescent Students at Selected Schools of Bharatpur Metropolitan City, Chitwan

DOI: <https://doi.org/10.3126/jcmsn.v21i2.80516>

Context: Cancer is a leading cause of global mortality, and one-third of cases are preventable. Awareness about cancer in adolescents is critical for early detection and long-term prevention.

Methodology: This was a cross-sectional study was conducted among 154 Grade 10 students from two government schools in Bharatpur using non-probability purposive sampling. Data were collected via self-administered structured questionnaires.

Key message: Most students had a moderate level of awareness about cancer, but gaps remain, especially regarding risk factors and screening. These findings suggest the need for integrating cancer education into school curricula to empower adolescents as awareness advocates.

Awareness and Practice of Lymphedema Prevention among Women with Breast Cancer at Tertiary Cancer Hospital, Chitwan, Nepal

DOI: <https://doi.org/10.3126/jcmsn.v21i2.71052>

Context: Breast Cancer Related Lymphedema (BCRL) is a common but preventable complication of breast cancer treatment. Awareness and preventive practices are key to reducing its incidence.

Methodology: This was a cross-sectional study was carried out among 115 breast cancer patients at B.P. Koirala Memorial Cancer Hospital, using purposive sampling and semi-structured interviews from Feb–Aug 2024.

Key message: Only 20% of participants had fair awareness of BCRL prevention, though over 73% practiced preventive behaviors like post-treatment exercise. Awareness was significantly associated with age and family history. These results highlight the need for targeted education programs on BCRL prevention.

Mental Health Literacy of Health Workers in Selected Health Facilities of Tanahun District, Nepal

DOI: <https://doi.org/10.3126/jbkc.v14i1.80769>

Context: Mental health literacy (MHL)—understanding and beliefs about mental disorders—is essential for effective recognition, management, and prevention. Health workers play a vital role, yet their own literacy levels may vary.

Methodology: This was a descriptive cross-sectional study conducted among 141 health workers from 18 selected health facilities using complete enumerative sampling. Data were collected via a self-administered questionnaire based on the Mental Health Literacy Scale (MHLS).

Key message: Health workers showed a moderate level of MHL (mean score 117 ± 10.49). Those with bachelor's degrees and under five years of experience scored significantly higher. Formal education and in-service training in mental health were lacking in the majority. Integrating mental health education into medical curricula and strengthening training programs is crucial to improve competency.

Integrating dermatology into Nepal's cancer control strategy: the role of noninvasive tools like dermoscopy in skin cancer screening and early detection

DOI: <https://doi.org/10.1093/bjd/ljafo85.460>

Context: Skin cancer is under-recognized in Nepal but contributes to 2–3% of all cancer cases. The national strategy (2022–2030) prioritizes early detection and public education, yet awareness remains limited.

Methodology: This was a cross-sectional dermoscopic screening study conducted among 120 patients, with biopsies for suspicious lesions. Community outreach reached 800 people across urban and rural areas. Public awareness, UV protection, and smoking cessation were emphasized.

Key message: 21% of screened patients had early-stage skin cancer; 40% of these were melanoma. Dermoscopy had a 90% diagnostic performance. Awareness increased by 85%. The National Health Insurance Program enabled free diagnosis and treatment. Integrating dermatology into national strategies and using noninvasive tools can improve early detection and outcomes.

Provision of mental health and psychosocial support services at the community level in Nepal: Insights from a midterm evaluation

DOI: <https://doi.org/10.59400/apr3068>

Context: While foreign employment is a major economic strategy in Nepal, it negatively impacts mental health and psychosocial well-being among migrants and their families.

Methodology: A midterm mixed-method evaluation was conducted involving 91 participants (quantitative tools: GHQ-12, HSCL-25, Life Satisfaction, Happiness Tools), 13 FGDs, and 26 KIIs. Data were analyzed using SPSS and thematic analysis.

Key message: Anxiety and depression rates decreased notably, and life satisfaction improved. Mental health services expanded to 19 facilities. Challenges like stigma and resource shortages persist. Systemic support through better policies and funding is needed for sustainable mental health care for migrants.

Impact of architectural design on mental health outcomes in psychiatric hospitals

DOI: <https://doi.org/10.3126/jgmc-n.v18i1.70897>

Context: There is growing interest in how hospital architecture influences patient recovery and

staff mental health in psychiatric care.

Methodology: This review explored design elements such as natural light, biophilic design, noise control, and green spaces. Salutogenic (health-promoting) design principles were assessed for their impact on mental well-being.

Key message: Design features like greenery, light, and ergonomic layouts reduce stress, improve mood, and prevent burnout among staff. However, lesser-studied elements like shapes and visual patterns require more research. Interdisciplinary design between architects and health professionals is crucial for optimizing mental health outcomes in care settings.

Building linkages between private pharmacies and public facilities to improve diabetes and hypertension care in urban areas of Nepal: a protocol for implementation research

DOI: <https://doi.org/10.1186/s13690-025-01586-4>

Context: Urbanization in LMICs like Nepal strains primary care services, increasing the burden of NCDs such as diabetes and hypertension. Pharmacies often serve as primary health access points for urban poor.

Methodology: This was a sequential mixed-methods study under the RE-AIM framework was conducted in Pokhara to assess strategies linking pharmacies with public health facilities. Data from client surveys, interviews, and cost-effectiveness analysis will be collected at multiple time points.

Key message: This study will guide how pharmacies can be sustainably integrated into public health systems for NCD prevention and management. Insights will inform scalable models for urban LMIC settings, offering practical solutions for reaching underserved populations.

Illness and treatment beliefs in Kathmandu valley Nepalis under hypertensive care

DOI: <https://doi.org/10.1371/journal.pgph.0004270>

Context: Hypertension affects nearly one-third of adults in Nepal, with poor long-term drug adherence. Western communication strategies may not align with Nepali cultural beliefs around disease and treatment.

Methodology: This was a cross-sectional structured interview conducted with 500 hypertensive patients in three urban hospitals in Kathmandu. Interview items were based on a prior qualitative survey and explored patients' beliefs about hypertension, symptoms, treatment, and general health.

Key message: Nepali patients view hypertension as symptomatic and distressing, contrary to the Western “silent disease” model. Concerns about long-term medication dependency and preference for natural remedies indicate a need to culturally tailor hypertension education and treatment approaches.

Primary healthcare system readiness for the prevention and management of non-communicable diseases in Nepal: a mixed-methods study

DOI: <https://doi.org/10.21203/rs.3.rs-6755631/v1>

Context: Non-communicable diseases (NCDs) account for two-thirds of deaths in Nepal. WHO-PEN was adopted in 2016 to address this burden, but the readiness of primary healthcare facilities to deliver NCD care remains uncertain.

Methodology: This was a convergent parallel mixed-methods study that assessed 105 facilities using the WHO SARA tool. Quantitative data were analyzed using survey-weighted regression, and qualitative data were gathered from 70 interviews with health providers and authorities.

Key message: NCD service readiness is moderate and highest for cardiovascular diseases. Readiness varies by facility type and geography, with challenges including staff turnover and lack of equipment. Strengthening training, infrastructure, and consistent supply chains is critical.

Effectiveness of 90% Pictorial Health Warnings (PHW) on tobacco products in Nepal

Link: <https://www.tobaccoinduceddiseases.org/Effectiveness-of-90-Pictorial-Health-Warnings-PHW-on-tobacco-products-in-Nepal,206593,0,2.html>

Context: Tobacco use is a major public health concern in Nepal. The government implemented 90% pictorial health warnings on tobacco products to reduce consumption and prevent initiation.

Methodology: A cross-sectional survey (n=3002) was conducted across 11 cities using random sampling and face-to-face interviews. Effectiveness was assessed through self-reported awareness and behavioral influence. Logistic regression identified influencing factors.

Key message: PHWs are effective in raising awareness, discouraging tobacco use, and motivating cessation. A majority of participants supported PHWs, with evidence suggesting further increasing warning size and improving image quality could enhance impact.

Prevalence of Hypertension and its Associated Factors among Public Vehicle Drivers in Western Nepal: A Population-based Study

DOI: <https://doi.org/10.21203/rs.3.rs-6310909/v1>

Context: Hypertension is a global issue with understudied occupational risk factors, especially among public transport drivers in Nepal.

Methodology: This was a cross-sectional study of 358 male drivers using blood pressure measurements and a structured questionnaire.

Key message: Hypertension prevalence among drivers is high (41.9%) and significantly associated with age, BMI, alcohol use, and family history. Targeted health screening and interventions are necessary for this occupational group.

Nutritional Assessment of Patients with Type-2 Diabetes in a Tertiary Level Hospital in a Low-and Middle-income Country

Link: <https://www.jkahs.org.np/jkahs/index.php/jkahs/article/view/925/524>

Context: Type 2 diabetes is a growing burden in Nepal, with poor dietary knowledge contributing to poor disease management and complications.

Methodology: This was a cross-sectional study was conducted on 266 diabetic patients in a tertiary hospital using purposive sampling. Data were analyzed with descriptive statistics using SPSS.

Key message: Most patients were overweight and continued unhealthy habits despite diagnosis. Dietary compliance was low, with only 15% following professional advice. Counseling and monitoring are crucial for effective diabetes management.

Status of Hypertension and Its Associated Factors Among Undergraduate Medical Students of a Private Medical College in Lalitpur District

Link: <https://pubmed.ncbi.nlm.nih.gov/40464240/>

Context: Hypertension is often termed a “silent killer” and disproportionately affects individuals in high-stress environments. Medical students, due to academic pressure, irregular sleep, and unhealthy lifestyle habits, are particularly vulnerable.

Methodology: This cross-sectional study was conducted among 500 undergraduate and intern students at a teaching hospital between August and November 2023 using total enumeration.

Key message: 46.8% of the students had hypertension, with a significantly higher rate among males and obese individuals. The findings highlight an alarming burden among future health professionals, urging medical institutions to integrate regular screenings and health promotion programs in their curriculum.

Awareness Regarding Cancer Risk Factors among Udayapur Cement Factory, Eastern Nepal

DOI: <https://doi.org/10.3126/jnhls.v4i1.80800>

Context: Industrial workers are routinely exposed to physical, chemical, and behavioral risk factors for chronic diseases like cancer.

Methodology: This was a cross-sectional quantitative study that surveyed 93 male workers using a structured interview schedule and purposive sampling.

Key message: Over 80% of respondents had poor awareness of cancer risk factors, with only 1.1% demonstrating good knowledge. The study suggests a critical need for workplace-centered health education initiatives to help reduce preventable cancer-related morbidity and mortality.

Prevalence and Associated Risk Factors for Post-Traumatic Stress Disorder (PTSD) in COVID Survivors: A Cross-Sectional Study

DOI: <https://doi.org/10.3126/jcmsn.v21i2.80496>

Context: While COVID-19's physical effects have been widely studied, its psychological aftermath, especially PTSD, is under-explored in low-resource settings like Nepal.

Methodology: This was a cross-sectional study of 228 COVID-19 survivors was conducted in Damak Hospital using standardized PTSD screening tools.

Key message: PTSD was present in 40.4% of survivors, with strong associations found for female gender, diabetes, high blood pressure, and post-infection COPD. This indicates a pressing need for integrating mental health services into post-COVID care and focusing on at-risk groups.

Knowledge and attitudes regarding HPV infection and its vaccination among adolescent girls in Chandannath municipality, Jumla, Nepal

DOI: <https://doi.org/10.54530/jcmc.1641>

Context: Human papillomavirus (HPV) is a leading cause of cervical cancer globally, especially affecting low- and middle-income countries like Nepal.

Methodology: This was a descriptive cross-sectional study conducted among 422 adolescent girls (aged 13–19) in grades 9–12 in selected schools of Chandannath Municipality, Jumla. Proportionate sampling was used, and data were collected via a structured self-administered questionnaire.

Key message: 66.4% of respondents had poor knowledge about HPV and its vaccine, though over half (52.8%) showed a favorable attitude. Knowledge and attitude were significantly influenced by age, religion, maternal education, and socioeconomic factors. A strong positive correlation between knowledge and attitude highlights the potential of educational interventions to improve vaccine uptake and prevent cervical cancer.

Challenges Faced by Nurses Working at Tertiary Cancer Hospital, Nepal

DOI: <https://doi.org/10.3126/jbkc.v14i1.80765>

Context: Cancer care nursing is emotionally and physically demanding, often placing nurses under significant stress. In Nepal's specialized cancer hospitals, these challenges are compounded by workforce and communication gaps.

Methodology: This was a cross-sectional study among 90 nurses at B.P. Koirala Memorial Cancer Hospital used semi-structured questionnaires and purposive sampling.

Key message: Staff shortages (83.3%), language barriers (81.1%), and stress from communicating bad news were major challenges. The findings underscore the importance of institutional support, communication training, and staffing reforms to ensure nurse well-being and quality cancer care delivery.

Prevalence and outcomes of pregnancy-induced hypertension among women seeking maternity services in selected tertiary hospitals of Gandaki Province

DOI: <https://doi.org/10.3126/jgmc-n.v18i1.71136>

Context: PIH, including pre-eclampsia and eclampsia, is a critical maternal health issue and a leading cause of adverse birth outcomes. Its timely identification and management are key to reducing maternal and neonatal complications.

Methodology: This was a retrospective analysis of medical records conducted among 751 PIH-diagnosed women out of 11,927 maternity cases in tertiary hospitals from Shrawan 2079 to Ashad 2080. Descriptive statistics were applied to analyze maternal and fetal outcomes.

Key message: Gestational hypertension was the most prevalent, and complications like low birth weight (31.4%) and fetal distress (18.5%) were common. Early detection and intervention strategies, along with public health awareness, are vital to improving maternal and neonatal outcomes in Nepal.

Exposure to solid and non-clean cooking fuels and the risk of obesity, hypertension, anemia, depression, and anxiety in women of reproductive age: a nationwide population-based study

DOI: <https://doi.org/10.1186/s41043-025-00983-3>

Context: Solid and non-clean fuels are widely used in Nepal, particularly by women in rural areas, yet their broader health effects are not well understood. These fuels contribute to household air pollution and may exacerbate physical and mental health conditions.

Methodology: Using data from the 2022 Nepal Demographic and Health Survey, the study examined 4,129–6,992 women aged 15–49. Logistic regression models controlled for confounding factors to assess associations with hypertension, anemia, depression, anxiety, and obesity.

Key message: Solid fuel use was significantly associated with higher risks of anemia, depression, and anxiety, though it showed an inverse relationship with obesity. These findings call for urgent policy actions to promote clean fuel alternatives and protect women's health at the household level.

Prevalence of diabetes and diabetic retinopathy among adults aged 50 years and above in Nepal: a population-based cross-sectional survey


DOI: <https://doi.org/10.1136/bmjophth-2025-002191>

Context: Diabetic retinopathy (DR) is a preventable cause of blindness that often goes undetected, especially in older adults and rural communities in Nepal. National-level evidence is crucial for informed eye health interventions.

Methodology: A RAAB+DR population-based survey was conducted among 13,510 individuals aged ≥ 50 using multistage cluster random sampling. Diabetes and DR diagnoses were made using blood glucose screening and on-site eye examinations by trained professionals.

Key message: DM prevalence was 6.1%, and DR was notably high in Bagmati Province, with many patients never having had an eye exam. These results point to the need for community-level screening programs and better integration of eye care into chronic disease management systems.





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 June 2025.

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

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

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Publications



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