

HIGHLIGHT OF THIS ISSUE

Population-attributable burden of modifiable risk factors for depression and anxiety among reproductive-age women in Nepal

Introduction:

This crucial study assesses how social and environmental factors—specifically violence and food insecurity—fuel the rising mental health crisis among reproductive-age Nepali women.

Key Message:

Modifiable stressors like emotional, physical, and sexual abuse, alongside food insecurity, cause over half (52.8%) of depression and 35.7% of anxiety cases. This demands urgent community interventions targeting gender-based violence.

Methodology:

A cross-sectional analysis of 7,410 women using 2022 Demographic Health Survey data applied regression models to connect mental health outcomes with modifiable risk factors.



Making non-communicable diseases a national priority

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Roundup Summary

In March 2026, our search on non-communicable diseases and mental health-related literature in Nepal yielded twenty published articles. Most of the studies covered non-communicable diseases, mental health, substance abuse, COPD and Heart health.

Epidemiological trajectories and predictive modeling of latent tuberculosis prevalence in South Asia: an in-depth global burden of disease analysis (1990–2021) with advanced forecasting to 2050

DOI: <https://doi.org/10.1016/j.jctube.2026.100595>

Context: Latent tuberculosis infection remains a major reservoir for the global TB epidemic, especially in densely populated South Asia with high socioeconomic disparities. Long-term epidemiological trends and future projections of LTBI have received limited attention despite their importance for prevention. This study analyses historical patterns and forecasts prevalence to 2050 to guide targeted interventions.

Methodology: Age-standardised LTBI prevalence rates from the Global Burden of Disease Study 2021 were examined for five high-burden countries from 1990 to 2021, stratified by sex. Joinpoint regression identified trend changes and calculated annual percent changes. Auto-ARIMA models with bootstrap simulations generated forecasts to 2050 with prediction intervals.

Key message: Bangladesh, Bhutan, Nepal, and Pakistan showed steep LTBI declines and are projected to reach very low or near-zero levels by 2050. India had only modest reduction with a post-2015 resurgence and is expected to remain stable at high levels. Wide prediction intervals highlight uncertainty, requiring sustained, gender-responsive, and innovative interventions across the region.

Hidden Threats, Preventive Efforts, and Resolving Non- Communicable Diseases among Soldiers in Nepal

DOI: <https://doi.org/10.3126/shivapuri.v27i1.90938>

Context: Non-communicable diseases pose an unrecognized threat to military personnel, leading to premature mortality, disability, and reduced operational readiness. In the Nepali Army, NCDs such as hypertension, depression, diabetes, and heat-related illnesses are rising due to lifestyle and service-related factors. This study assesses the epidemiology and proposes ways forward for prevention among soldiers.

Methodology: A mixed-methods approach was used, combining qualitative and quantitative data from published national and international journal articles. Descriptive analysis examined prevalence and risk factors. Policy implications for the Nepali Army Medical Corps were derived from the synthesis.

Key message: Alarming rates include 13.4% hypertension and 25.27% major depression among soldiers. NCDs increase medical costs and compromise welfare. Targeted behavioral interventions and comprehensive prevention strategies are urgently needed by policymakers.

Community health worker-facilitated home visits for hypertension management in urban Nepal: a mixed-methods process evaluation

DOI: <https://bmjopen.bmj.com/content/16/3/e111093.abstract>

Context: Hypertension control remains poor globally, especially in low- and middle-income countries where scalable community strategies are needed. Community health worker (CHW) home visits show promise, but implementation evidence is limited. This process evaluation explores mechanisms, fidelity, and contextual factors influencing a CHW intervention in urban Nepal.

Methodology: A mixed-methods process evaluation was nested within a cluster randomised trial. Surveys were conducted at baseline (n=1252) and follow-up (n=1098), with observations of 47 home visits and in-depth interviews with participants, family members, CHWs, and providers.

Key message: 86% of participants completed all six visits with high satisfaction and perceived benefits like better knowledge and family support. However, action plans lacked specificity and public primary care faced stockouts and weak capacity. Strengthened CHW training and better integration with primary care are essential for sustained impact.

Ethnic disparities in cancer prevalence in Nepal from a 6 year analyses of a single tertiary hospital cancer registry

DOI: <https://link.springer.com/article/10.1186/s12982-026-01607-9>

Context: Cancer burden in Nepal shows significant variation by ethnicity, geography, and demographics, which is critical for planning prevention and treatment services. This study examines six-year trends using hospital admission data to highlight disparities. Findings can inform targeted national health strategies.

Methodology: Data from 2874 patients admitted at Kathmandu Cancer Centre between 2016 and 2021

were analysed. Prevalence estimates were reported by cancer type, gender, age group, ethnicity, and geographic location. Descriptive statistics summarised patterns and disparities.

Key message: Head and Neck cancers had the highest prevalence across ethnicities, peaking in the 60–69 age group. Koshi and Bagmati provinces showed the highest burden, with disproportionate representation of Bahun/Chhetri patients. Ethnic disparities in cancer prevalence and access call for tailored preventive and curative services.

Prevalence of hypertension and associated factors among sanitation workers: a community based cross-sectional survey in five urban regions of Nepal

DOI: <https://link.springer.com/article/10.1186/s12872-026-05540-2>

Context: Sanitation workers in Nepal face hazardous conditions and occupational risks but are often overlooked in national health surveys. They may experience higher rates of non-communicable diseases like hypertension due to lifestyle and work exposures. This study assesses prevalence and associated factors in this marginalized group.

Methodology: A community-based cross-sectional survey enrolled 790 sanitation workers across five urban regions using total enumerative sampling via health camps. Face-to-face interviews and clinical measurements (BP, BMI, blood sugar) were conducted. Multivariable logistic regression identified associated factors.

Key message: Hypertension prevalence was 30%, higher than national estimates (20–24.5%). Significant associations included older age (AOR 7.46), male sex (AOR 1.78), daily alcohol use (AOR 3.29), and obesity (AOR 3.35). Targeted screenings, occupational health programs, and lifestyle interventions are urgently required.

Psychological distress and its associated factors among cancer patients in Nepal: A cross-sectional study

DOI: <https://doi.org/10.1371/journal.pmen.0000419>

Context: Psychological distress including depression, anxiety, and stress is common in cancer patients but often neglected in low-resource settings like Nepal. Clinical and financial concerns usually overshadow mental health needs. This study estimates prevalence and identifies associated factors to support holistic care.

Methodology: A cross-sectional study enrolled 262 cancer patients from two tertiary hospitals using

the Nepali DASS-21 scale. Binary and multivariate logistic regression examined associations with sociodemographic, clinical, and economic variables. SPSS was used for analysis.

Key message: Over two-thirds had depression (66.8%) and anxiety (68.7%), while 58% had stress. Higher distress was linked to older age, unemployment, lower education, and advanced cancer stage. Routine mental health screening and counseling should be integrated into oncology services.

“It become more difficult when people don’t empathize with us”: COVID-19 related stigmatization experienced by survivors in Nepal

DOI: <https://doi.org/10.1371/journal.pone.0344123>

Context: Stigma emerged as a major challenge for COVID-19 survivors during the pandemic, affecting disclosure, trust, and help-seeking. In Nepal, social rejection and internalized stigma compounded the crisis. This study explores forms, drivers, and impacts of such stigma to inform future outbreak preparedness.

Methodology: A qualitative study conducted phone in-depth interviews with 15 survivors who reported stigma in a prior survey. Thematic analysis following Braun and Clarke’s approach was used to identify patterns.

Key message: Stigma included social rejection, discrimination, and internalized fear, driven by misinformation, fear of death, and weak health systems. It had lasting social consequences even as the pandemic evolved. Clear communication, strengthened systems, and social protection are key to mitigating stigma in future emergencies.

Self-compassionate engagement among older adults living with chronic diseases in Kathmandu, Nepal: a qualitative descriptive study

DOI: <https://link.springer.com/article/10.1186/s40359-026-04340-9>

Context: Older adults with chronic diseases face physical and emotional challenges that self-compassion can help address, yet this concept is underexplored in Nepal. Self-compassion may improve coping and well-being in this population. This study explores its meaning and engagement among older Nepali adults.

Methodology: A qualitative descriptive design used purposive sampling of 15 older adults in Kathmandu. Face-to-face in-depth interviews were conducted and analysed thematically, following COREQ reporting guidelines.

Key message: Three themes emerged: self-kindness in action (practical self-care), mindful engagement for awareness, and viewing disease as shared humanity. Barriers included denial, fear of dependency, and self-neglect. Integrating self-compassion into healthcare, community programs, and family support can enhance outcomes.

Trends in reported animal bites and rabies-related mortality in Nepal (2014–2024): A descriptive analysis of national surveillance data

DOI: [10.4103/ohbl.ohbl_84_25](https://doi.org/10.4103/ohbl.ohbl_84_25)

Context: Animal bites, particularly dog bites, remain a significant public health issue in Nepal, contributing to rabies risk and high vaccine consumption. National trends and their impact on mortality need monitoring for elimination goals. This study analyses surveillance data over a decade.

Methodology: National Annual Health Reports from 2014 to 2024 were reviewed using descriptive statistics, Spearman's correlations, and trend analysis. Negative binomial regression modelled deaths due to overdispersion.

Key message: Annual mean dog bites were 59,715 with rising trends (~12,600 cases/year increase), alongside high ARV use but only 17 mean deaths. Mortality did not directly correlate with bite volume. Strengthened One Health surveillance and equitable vaccine distribution are needed for rabies elimination.

A retrospective analysis of rabies post-exposure prophylaxis in Kapilvastu District, Nepal

DOI: <https://link.springer.com/article/10.1186/s12889-026-27015-x>

Context: Rabies is a preventable yet fatal disease in Nepal's Terai region, where animal bites are common. Timely post-exposure prophylaxis (PEP) is critical, but delays can occur due to access issues. This study examines bite patterns and PEP timeliness in Kapilvastu.

Methodology: Retrospective analysis of 2,853 animal bite cases from Kapilvastu Hospital's anti-rabies register (June 2022–May 2023). Descriptive statistics characterised exposures, and multivariable logistic regression identified factors for delayed PEP (>24 hours).

Key message: Dogs caused 91.6% of bites, mainly affecting males and young children. PEP completion was high (93.6%), but only 14.1% received the first dose on the day of exposure. Delays were higher in remote areas and adolescents; urgent public awareness is needed for immediate PEP.

Evaluation of Quality Indicators for Radiation Therapy of Cervical Cancer: Experience From a Tertiary Cancer Center in Nepal

DOI: <https://doi.org/10.1200/GO-25-00435>

Context: Cervical cancer is the second most common cancer among women in Nepal, requiring high-quality radiotherapy. Monitoring quality indicators helps identify gaps and set priorities in resource-limited settings. This study evaluates adherence to international standards.

Methodology: A retrospective review included 83 patients with locally advanced cervical carcinoma treated in one year. Nineteen ESGO/ESTRO quality indicators were assessed using frequencies, percentages, and binomial 95% confidence intervals for adherence rates.

Key message: High adherence was seen in brachytherapy-related indicators (97–100%), but very low in pretreatment work-up, IMRT use, image guidance, clinical trials, and follow-up/sexual rehabilitation. Overall compliance varied, highlighting areas for improvement through targeted strategies at the center.

Population-attributable burden of modifiable risk factors for depression and anxiety among reproductive-age women in Nepal

DOI: <https://www.nature.com/articles/s41598-026-43908-8>

Context: Anxiety and depression are rising among reproductive-age women in Nepal, driven by modifiable risk factors that need quantification for effective interventions. Population Attributable Fractions (PAFs) help prioritise prevention efforts. This study identifies key contributors using national survey data.

Methodology: Cross-sectional analysis of 2022 Nepal Demographic Health Survey data (weighted $n=7,410$ women) used multilevel logistic regression for odds ratios. Adjusted PAFs accounting for communality were calculated for depression and anxiety.

Key message: Emotional abuse, physical violence, sexual abuse, functional difficulty, and food insecurity accounted for 52.8% of depression and 35.7% of anxiety cases. Violence-related factors had the highest PAFs. Community and couple-based interventions targeting gender-based violence are essential to reduce mental health burden.

Prevalence and Early Features of Depression in Children, Adolescents, and Young Adults with Diabetes

DOI: <https://doi.org/10.52910/ajhs.270>

Context: Children, adolescents, and young adults with diabetes face a significant psychological burden that increases their risk of depression. Early depressive symptoms are often underrecognized and undertreated in this vulnerable group. This review identifies early markers of depression to support timely intervention.

Methodology: A literature review was conducted with input from public and patient involvement. Studies on depression, diabetes distress, and psychological symptoms were screened, including evaluation of screening tools and diabetes-specific measures. Lived experience perspectives guided the review direction.

Key message: Depression prevalence in young people with T1DM ranged from 9.5% to 46.3%, with diabetes distress affecting up to 61%. Early markers include low mood, irritability, anhedonia, hopelessness, fatigue, sleep/appetite changes, and academic difficulties. Routine screening for both depressive symptoms and diabetes distress is essential for optimal management and well-being.

Awareness and Practice Regarding Diabetic Retinopathy Among Diabetic Patients Attending Bir Hospital

DOI: <https://doi.org/10.52910/ajhs.266>

Context: Diabetic retinopathy is a leading cause of irreversible blindness, yet patients often remain asymptomatic until advanced stages. Timely screening and awareness are critical to reduce the burden of visual morbidity. This hospital-based study assesses awareness and prevalence among diabetic patients.

Methodology: A descriptive cross-sectional study included 113 participants using non-random purposive sampling from December 2024 to June 2025. Data were collected through clinical assessment and entered into MS Excel before analysis in SPSS. Patients with prior intervention for diabetic retinopathy were excluded.

Key message: Mean age was 56.1 years with median diabetes duration of 6 years. 74.3% were aware that diabetes affects vision and requires regular eye exams, yet diabetic retinopathy was found in 36.3%. Targeted awareness programs are essential to promote early screening and reduce irreversible blindness.

Community-based Hypertension Control (CHPC) in Nepal: Cluster randomized implementation trial protocol

DOI: <https://doi.org/10.1016/j.puhip.2026.100772>

Context: Hypertension control requires scalable community strategies, but implementation evidence in low-resource settings remains limited. Community health volunteers can play a key role in blood pressure monitoring and lifestyle support. This hybrid trial evaluates strategies to enhance uptake of a community-based hypertension intervention.

Methodology: A cluster-randomized hybrid type III effectiveness-implementation trial randomizes 102 health facilities in Sindhupalchowk district. The CHPC intervention includes BP monitoring, counseling, and adherence support with strategies like leadership promotion, capacity building of FCHVs, and social networks. Reach, adoption, fidelity, maintenance, and blood pressure reduction will be assessed using mixed methods guided by RE-AIM and CFIR frameworks.

Key message: The study will test whether implementation strategies improve uptake of community hypertension care delivered through health volunteers. Effectiveness will be measured by systolic BP reduction at 12 months, alongside cost-effectiveness. Findings will inform embedding community volunteers in hypertension management to reduce burden and improve quality of life.

Estimating the risk of anemia associated with PM_{2.5} exposure in Nepalese women of reproductive age

DOI: <https://www.nature.com/articles/s43856-026-01533-6>

Context: Air pollution is increasingly linked to health outcomes, but evidence on its association with anemia in women remains limited. Women of reproductive age in Nepal may be particularly vulnerable due to environmental and nutritional factors. This study investigates the relationship between PM_{2.5} exposure and anemia risk.

Methodology: Nationally representative 2022 Nepal Demographic and Health Survey data from 4,133 women were analysed. Anemia was defined using WHO hemoglobin thresholds, and mean PM_{2.5} exposure was obtained from national monitoring data. Weighted regression models assessed associations between PM_{2.5} levels and anemia risk.

Key message: Higher PM_{2.5} exposure was associated with lower hemoglobin levels and increased anemia risk (OR 1.29 per 10 µg/m³ increase). The risk was stronger among women with lower education and those in mountainous regions. Urgent interventions for air quality improvement and targeted

health programs are needed in low-resource settings.

Quality of life and associated factors among people living with hypertension in a tertiary hospital of Kathmandu District, Nepal

DOI: <https://link.springer.com/article/10.1186/s12872-026-05767-z>

Context: Hypertension significantly affects quality of life through physical, social, and psychological burdens, yet associated factors are poorly understood in low- and middle-income settings. In Nepal, modifiable behaviors and social support may play key roles. This study assesses quality of life and its determinants among hypertensive individuals.

Methodology: A cross-sectional study of 200 hypertensive patients in a Kathmandu hospital used semi-structured interviews and the WHOQOL-BREF tool. Descriptive statistics summarised factors, while chi-square and multivariable logistic regression identified associations with poor quality of life.

Key message: 88% reported good quality of life, but lower income, illiteracy, lack of family support, physical inactivity, high salt intake, and irregular medication were linked to poorer outcomes. Family support, meat/fish consumption, and physical activity were protective factors. Interventions strengthening social support, diet, and activity can substantially improve quality of life.

Intestinal Parasites in School Children in Rural and Urban Areas in Kavrepalanchok, Nepal

DOI: <https://link.springer.com/article/10.1007/s10393-026-01781-x>

Context: Intestinal parasitic infections remain a public health concern in Nepal, particularly among school children, due to poor sanitation and hygiene practices. Transmission often occurs through contaminated water, soil, and food. This study evaluates prevalence and risk factors in Kavrepalanchok district.

Methodology: A cross-sectional study collected fecal samples from 195 children and 41 environmental samples (soil, vegetables, water) between January and June 2021. Direct wet mount, sedimentation, flotation, and modified acid-fast staining techniques were used, alongside questionnaire data on sociodemographics and behaviors.

Key message: Overall IPI prevalence was 13.85%, with *Entamoeba* spp. predominant (62.86%). Nail-biting and raw vegetable consumption were associated in rural areas, while abdominal pain strongly predicted infection (AOR 6.658). Improved water, sanitation, hygiene education, and environmental

measures are needed to break transmission cycles.

Body image dissatisfaction among adolescents residing in Kathmandu Metropolitan City: a community-based cross-sectional study

DOI: <https://link.springer.com/article/10.1186/s40359-026-04457-x>

Context: Body image dissatisfaction among adolescents is linked to unhealthy behaviors, low self-esteem, and mental health issues, but remains understudied in Nepal across both genders. Behavioral, perceptual, and familial factors may influence dissatisfaction. This study assesses prevalence and associated factors in Kathmandu.

Methodology: A community-based cross-sectional study included 313 adolescents aged 10–19 using systematic sampling. Data were collected via semi-structured questionnaires, anthropometric measurements, and validated tools (BSQ-16B, Figure Rating Scale, PBSS-8). Multivariable logistic regression identified associated factors.

Key message: Body image dissatisfaction prevalence was 24.3%, higher in females (AOR 1.99). Overweight/obesity (AOR 2.41), meal skipping (AOR 4.14), body shaming (AOR 2.70), and perceiving body as too large strongly increased risk. Body image literacy and psychosocial support should be integrated into school and adolescent health programs.

Satisfaction of Pregnant Women in Antenatal Care Service Attending in Province Hospital Surkhet, Karnali province, Nepal

DOI: <https://doi.org/10.3126/nprcjmr.v3i3.92439>

Context: Regular antenatal care is essential for early detection of complications and improving maternal outcomes, yet satisfaction levels indicate gaps between expected and received services. In resource-limited settings like Karnali Province, understanding satisfaction can guide improvements. This study evaluates ANC satisfaction and influencing factors.

Methodology: A descriptive cross-sectional study used convenience sampling of 246 pregnant women who completed at least three ANC visits at Surkhet Provincial Hospital. Self-made general information and ANC satisfaction questionnaires were administered. ANOVA, Kruskal-Wallis, and multiple linear regression analysed factors.

Key message: Overall satisfaction score was moderate (80.57 ± 8.32), with highest ratings for provider attitude and humanistic care. Education, economic status, transportation, occupation, and number

of children influenced satisfaction. Enhancing accessibility, affordability, and client-centered care is needed, especially for socio-economically disadvantaged women.



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 March 2026.

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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