

HIGHLIGHT OF THIS ISSUE

Maternal Diet Quality and Third Trimester Depression: Insights From a Nepali Birth Cohort Study

Introduction:

Perinatal depression is a major public health concern in Nepal, affecting maternal and child health. Nutritional inadequacy during pregnancy is common and may contribute to poor mental health, particularly in the third trimester.

Key Message:

This study shows clear association between better maternal diet quality and lower risk of third-trimester depression. Each improvement in diet quality reduced the odds of depressive symptoms, highlighting diet as a feasible intervention within routine antenatal care.

Methodology:

A cross sectional analysis of 296 pregnant women attending Dhulikhel Hospital assessed depression using the Edinburgh Postnatal Depression Scale and diet quality using Prime Diet Quality Score. Multivariate Logistic regression was used to estimate the adjusted associations.



Making non-communicable diseases a national priority

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Roundup Summary

In November 2025, our search on non-communicable diseases and mental health-related literature in Nepal yielded eighteen published articles. Most of the studies covered non-communicable diseases, mental health, substance abuse, COPD and Heart health.

Prevalence and associated factors of postpartum depression among women in putalibajar municipality

DOI: <https://doi.org/10.3126/jpan.v14i2.86050>

Context: Postpartum depression (PPD) is a non-psychotic mood disorder that can onset after delivery and persist for weeks or months, significantly affecting maternal health and child development. Globally, PPD has been extensively studied, but research remains limited in Nepal despite its public health importance. This study focuses on identifying PPD prevalence and associated factors in a specific Nepali municipality to address this evidence gap.

Methodology: A community-based cross-sectional study was conducted from October 2019 to March 2020 among 263 married women in the extended postpartum period in Putalibajar municipality, Gandaki Province. Data were gathered through face-to-face interviews using a structured schedule, with PPD measured via the Edinburgh Postnatal Depression Scale (EPDS). Associations were assessed using chi-square tests, and logistic regression determined the strength of relationships between variables.

Key message: The prevalence of PPD was 10.6%, indicating that one in ten women experienced symptoms. Husbands' alcohol consumption (AOR=5.582) and intimate partner violence during pregnancy (AOR=9.134) were strongly associated with higher PPD risk. These findings underscore the need for targeted interventions addressing domestic violence and alcohol use to mitigate PPD in Nepali communities.

Assessment of Vitamin D level in Depression and its association with severity of depression

DOI: <https://doi.org/10.3126/jpan.v14i2.86044>

Context: Depression is a severe mental health condition that can lead to suicide and increased mortality, with emerging evidence pointing to biological markers like Vitamin D deficiency. In Nepal, limited studies have explored these markers in untreated patients. This research compares Vitamin D levels across depression severity in treatment-naïve cases to establish potential links.

Methodology: A hospital-based cross-sectional study was carried out from March 2021 to March 2022 at Patan Academy of Health Sciences, involving 55 purposively selected treatment-naïve patients diagnosed with depression per ICD-10 criteria. Data on age, gender, depression severity, and serum Vitamin D levels were collected and analyzed using descriptive and inferential statistics in EZR software. Associations between Vitamin D categories and depression severity were tested statistically.

Key message: Moderate depression affected 40% of patients, with 41.8% showing insufficient or deficient Vitamin D levels. A significant association ($p<0.001$) was found between lower Vitamin D and greater depression severity, including differences in median levels across severity categories. This suggests Vitamin D deficiency may contribute to depression severity, warranting further investigation and potential supplementation strategies.

Monitoring care for pregnancy-induced hypertension (PIH): analysis of original cross-sectional study data in selected hospitals of Nepal

DOI: <https://doi.org/10.1093/eurheartj/ehaf784.3369>

Context: Hypertensive disorders of pregnancy (HDP) account for 11% of maternal deaths in Nepal and 14% globally, often due to delays in diagnosis, treatment, and adherence in low-resource settings. Effective management requires comprehensive monitoring and intervention, yet gaps persist in Nepal's care continuum. This study applies the Cascade of Care model to evaluate screening, diagnosis, awareness, and treatment of PIH.

Methodology: A cross-sectional study (April–September 2024) involved 1,195 normotensive pregnant women at 20–30 weeks gestation in three tertiary hospitals, using structured interviews and medical record abstraction. PIH was defined by standardized blood pressure criteria, adherence measured via Hill-Bone Scale, and associations analyzed with multivariate logistic regression in STATA. Proportions across care stages were estimated to identify bottlenecks.

Key message: All women were screened, with 5.8% diagnosed with PIH and 98.6% aware, but only 52.8% received medication while others got lifestyle counseling. Older age ($OR=1.21$) and more comorbidities ($OR=4.9$) significantly predicted PIH, with suboptimal medication adherence overall. Findings highlight strong screening but treatment gaps, recommending integration of Cascade of Care for systematic PIH management.

Quality of life and prevalence of prehypertension/hypertension among patients with diabetes mellitus: A cross-sectional study in a tertiary care hospital of Gandaki Province, Nepal

DOI: <https://doi.org/10.1016/j.cegh.2025.102209>

Context: Diabetes and hypertension frequently co-occur, contributing heavily to cardiovascular disease burden, yet prevention and quality of life (QOL) impacts are often overlooked in Nepal's healthcare focus on treatment. Rising prevalence demands assessment of blood pressure status and QOL in diabetic patients. This study evaluates these aspects in a regional hospital setting.

Methodology: A hospital-based cross-sectional study collected data from diabetic patients in the medical ward of Pokhara Academy of Health Sciences using structured questionnaires, including WHOQOL-BREF for QOL. Descriptive statistics and binary/multiple logistic regression in SPSS identified prevalence, associated factors, and QOL scores. Newly diagnosed cases were also noted.

Key message: Over half (51.5%) of diabetic patients had prehypertension/hypertension, including 4.1% newly diagnosed, with mean QOL score at 59.29 (highest in environmental domain). Risks were higher in joint families (AOR=2.06), non-yoga practitioners (AOR=1.87), and those on long-term medication (AOR=1.92). Early detection, lifestyle changes, and follow-up are emphasized to lower cardiovascular risks and enhance QOL.

Cervical Cancer and Its Preventive Behavior Among Tamang Women Residing in Nuwakot, Nepal

DOI: <https://doi.org/10.18122/td.2362.boisestate>

Context: Cervical cancer is the leading cause of cancer death among Nepali women, preventable through vaccination and screening, yet uptake is low, especially among ethnic minorities like Tamang due to knowledge gaps. Preventive behaviors are influenced by knowledge and attitudes. This study assesses these factors in a vulnerable community.

Methodology: A cross-sectional design with convenience sampling interviewed 251 Tamang women in three Nuwakot municipalities via home visits, using structured tools. Descriptive statistics summarized participant characteristics, while regression models examined associations with screening behavior. Barriers and facilitators were also explored.

Key message: Only 18% had ever been screened, with low knowledge but positive attitudes toward prevention; knowledge of cancer or risk factors increased screening odds. Common barriers included

absence of symptoms and lack of awareness about services. Awareness programs on primary and secondary prevention are urgently needed for this population.

Breast cancers among women presenting with palpable breast lump in a tertiary care hospital - a cross-sectional study

DOI: [10.1097/JS9.00000000000003785](https://doi.org/10.1097/JS9.00000000000003785)

Context: Breast cancer presents late in Nepal due to limited screening, leading to high mortality, particularly in the 40–50 age group. Evaluating lumps in symptomatic women provides insights into prevalence and risk factors. This study analyzes cancer cases among those with palpable breast lumps in a tertiary setting.

Methodology: A hospital-based cross-sectional study (January 2022–June 2024) included 250 women ≥ 18 years with breast lumps, using informed consent, predesigned proforma for data, histopathology for diagnosis, and SPSS for analysis ($p < 0.05$ significant). Cases were grouped as malignant or benign for comparisons. Clinicopathological features were detailed.

Key message: Breast cancer prevalence was 7.2% among lumps, significantly linked to older age, higher BMI, menopause, family history, painless hard fixed lumps, and comorbidities like diabetes. Invasive ductal carcinoma was most common (72.2%), often diagnosed at stage IIA/IIB. Early lump detection and risk factor awareness could reduce progression and mortality.

Lung cancer risk in Bagmati province, Nepal- A hospital-based spatial study from 2012 to 2021

DOI: <https://doi.org/10.1016/j.cegh.2025.102218>

Context: Lung cancer is rising globally and in developing countries like Nepal, lacking localized prevention strategies despite urban hotspots. Spatial analysis can inform targeted control. This study maps municipal-level incidence and trends in Bagmati Province.

Methodology: Hospital registry data (2012–2021) were geocoded to permanent addresses, verified via Google Earth, and analyzed spatially/temporally using GeoDa and ArcGIS. Crude and standardized rates were calculated, following international cancer registry guidelines. Temporal peaks and demographic patterns were examined.

Key message: Incidence was highest in Kathmandu Valley (especially Bhaktapur municipality), fluctuating but rising to 7.81/100,000 standardized in 2021, with males and middle-aged/elderly at

greater risk. Urban areas dominate the burden. Prioritized screening, awareness, and access to care are recommended as government focuses.

Suicidal ideation and its associated factors among secondary students in Nepal

DOI: <https://doi.org/10.1108/JPMH-06-2025-0083>

Context: Adolescent mental health, including suicidal ideation, is an emerging priority in Nepal, influenced by emotional distress, school environment, and interpersonal factors like violence or breakups. Few studies explore these psychosocial links locally. This research identifies prevalence and predictors in a municipal school setting.

Methodology: A school-based cross-sectional study used multistage stratified random sampling for 183 grades 9–12 students, with self-administered questionnaires on ideation, distress, and factors. Descriptive statistics, chi-square, and logistic regression analyzed predictors. Limitations include cross-sectional design and self-reports.

Key message: 13.1% reported suicidal ideation, higher in females, non-Brahmin/Chhetri ethnicities, those with distress, depression, or prior attempts; volleyball/basketball participation oddly increased odds (AOR=15.5). Poor school environment appeared protective in some models. School-based interventions, stigma reduction, and supportive climates are advocated.

Spatial heterogeneity of tuberculosis and dengue in Nepal

DOI: <https://doi.org/10.1038/s41598-025-24798-8>

Context: Nepal faces high TB and dengue burdens with geographic disparities, requiring targeted interventions for efficient resource use. Spatial-temporal analysis identifies hotspots over time. This study maps clusters for both diseases nationwide using recent data.

Methodology: Retrospective analysis of national cases applied Kulldorff's spatial-temporal scan statistics via SaTScan, using discrete Poisson model with 50% population window. TB data covered FY 2020–2023, dengue 2020–2023. High-risk clusters were identified by Log-Likelihood Ratios.

Key message: TB hotspots persisted in Terai districts (e.g., Rautahat, Sarlahi) and Kathmandu, with urban excess in 2022–2023; dengue surged in 2022 in Kathmandu Valley and eastern areas. Urban areas disproportionately affected for both. Ongoing monitoring and localized public health responses are essential.

Bridging the gap: the need for community-engaged research on blood cancer self-management experiences among South Asians

DOI: <https://doi.org/10.1007/s00520-025-10154-z>

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Co-design of pathway and manual for a dietitian-led approach to the management of type 2 diabetes in Nepal

DOI: <https://doi.org/10.1186/s40795-025-01202-2>

Context: Type 2 diabetes prevalence is surging in resource-limited Nepal without tailored, structured dietary management approaches. Integrated, contextual guidance is needed for effective control. This study employs co-design to create practical tools involving stakeholders.

Methodology: Guided by Design Thinking, the study included 19 pre-workshop stakeholder consultations, a co-design workshop with 14 participants, and validation interviews with 9. Qualitative data underwent content analysis to derive themes. Results structured around pathways and manual contents.

Key message: Workshop themes highlighted Nepali-specific challenges like social/behavioral barriers and provider responses. A dietitian-led pathway and Nutrition Education Manual were co-produced for integrated T2D management. These provide contextual mechanisms and practical tools to foster dietary adherence and healthy behaviors.

Validation and Evaluation of the Psychometric Properties of a Sexual Stigma Scale Among Gay, Bisexual, and Other Men Who Have Sex with Men in Nepal

DOI: <https://doi.org/10.1007/s13178-025-01241-1>

Context: Gay, bisexual, and other men who have sex with men (GBMSM) in Nepal endure high multidimensional stigma, hindering interventions. No validated Nepali scale existed previously. This study adapts and tests a sexual stigma measure for local use.

Methodology: Cross-sectional survey of 842 GBMSM assessed NNSSS alongside depression, anxiety, and sleep scales. Exploratory factor analysis identified structure, confirmatory analysis validated fit, with reliability and concurrent validity evaluated. Mean participant age was 27.6 years.

Key message: NNSSS revealed two factors (perceived/enacted stigma) with strong reliability (alpha 0.87 total) and validity, correlating significantly with mental health outcomes. It is psychometrically robust for Nepal. The scale is vital for measuring stigma and informing reduction programs.

Effect of TGF- β mediated phenotypic changes on prostate cancer cell anoikis response

DOI: <https://doi.org/10.1038/s41388-025-03600-z>

Context: Epithelial-mesenchymal transition (EMT) enables prostate cancer metastasis and therapy resistance by evading anoikis (detachment-induced apoptosis). TGF- β drives EMT-MET switches, potentially creating therapeutic windows. This preclinical work explores EMT priming's effect on anoikis and drug response.

Methodology: Multiple human prostate cancer cell lines (androgen-sensitive/resistant, TGF- β responsive/unresponsive) were treated with TGF- β and antitumor agents (DZ-50, cabazitaxel). EMT induction, apoptosis, signaling (pSRC/cofilin), metabolic shifts, and resistance overcoming were assessed in cells and organoids. Vulnerability intersections were mapped.

Key message: TGF- β -induced EMT primed responsive cells to anoikis via signaling downregulation and metabolic changes. DZ-50 bypassed taxane resistance in resistant models. Exploiting EMT-anoikis crossover could improve outcomes in lethal, therapy-resistant prostate cancer.

Model Initiation of Hypertension in the context of Nepal

DOI: <https://jhsw.n.com/index.php/jhsw/article/view/194>

Context: Hypertension drives cardiovascular disease in Nepal, requiring multisectoral awareness and lifestyle interventions. No single pioneer dominates the field. Contributions from individuals and organizations have built foundational efforts.

Methodology: Narrative summary reviews key figures like Dr. Bhagwan Koirala (heart center founder) and Dr. Buddha Basnyat (researcher), plus institutions (Nepal Heart Foundation, BPKIHS, WHO Nepal). Focus on screening, surveys, policies, and promotion. Approach emphasizes collective impact.

Key message: Advances stem from collaborative institutional and individual efforts rather than one leader. Awareness, screening, and policy support have grown. Multisectoral lifestyle-focused strategies remain essential for effective blood pressure control.

History of diabetes screening: from tasting urine to continuous glucose monitoring

DOI: <https://jhsw.n.com/index.php/jhsw/article/view/191>

Context: Diabetes affects 589 million globally (2024), projected to 785 million by 2050, with 7.7% prevalence in Nepali adults and rising sharply in South Asia (107 million regional cases). Ancient recognition dates back millennia. Modern tools have revolutionized diagnosis and monitoring.

Methodology: Narrative historical review traces from Egyptian Ebers Papyrus (~1550 BC) describing polyuria, Indian “Madhumeha” (5th–6th century BC), to Avicenna’s 10th–11th century descriptions. Covers 20th-century advances like home glucose monitoring, HbA_{1c} (1970s standard), and continuous glucose monitoring (late 1990s–2000s). Focuses on key diagnostic/management milestones.

Key message: Diabetes symptoms were noted in ancient texts across cultures, evolving to precise descriptions. HbA_{1c} enabled long-term glycemic tracking from the 1970s. Continuous glucose monitoring emerged recently, transforming daily management.

Mass conversion disorder in some schools in western Nepal: a case series of four events

DOI: <https://doi.org/10.52095/gpa.2025.7594.1104>

Context: Mass conversion disorder (functional neurological symptoms spreading socially) occurs in groups like schools, influenced by cultural beliefs (e.g., spirits) and stressors. It predominantly affects females in certain settings. This case series examines presentations in Nepali public schools.

Methodology: Retrospective assessment (June–August 2022) of 20 affected female students across four schools, via rapid team observations, examinations, and interviews with students/parents/teachers.

Symptoms, demographics, and health-seeking were compiled and descriptively analyzed. Cultural attributions were noted.

Key message: Symptoms included headache (40%), weakness/numbness; 80% involved spirit beliefs, with high recurrence (90%) and family stressors (e.g., separation). All sought traditional healers first/preferentially, linked to low parental education. School-based mental health support and teacher training are recommended.

Assessment of Knowledge on Insulin Administration Among Diabetes Mellitus Patients in Kathmandu Valley

DOI: <https://doi.org/10.1002/puh2.70164>

Context: Insulin-dependent diabetes management hinges on correct administration to prevent complications, yet knowledge gaps persist in Nepal. Assessing these identifies educational targets. This study evaluates knowledge and adherence in outpatient settings.

Methodology: Descriptive cross-sectional study (February–April 2024) surveyed 187 insulin-using patients at Kathmandu Diagnostic Center via semi-structured questionnaire on administration aspects. SPSS v23 analyzed knowledge levels, practices, and associations with demographics/therapy duration. Gaps were highlighted.

Key message: 84% showed adequate knowledge, strong in techniques like priming/asepsis, but weak in insulin types, complications, expiry checks, and disposal. Better outcomes linked to longer diabetes/insulin experience and older age, not device type. Tailored education is needed to close gaps and optimize control.

Maternal Diet Quality and Third Trimester Depression: Insights From a Nepali Birth Cohort Study

DOI: <https://doi.org/10.1111/mcn.70146>

Context: Perinatal depression affects maternal/child outcomes, potentially linked to diet quality in low-resource areas like Nepal where both are concerns. Third-trimester risks are high. This study explores diet-depression associations during pregnancy.

Methodology: Cross-sectional analysis (August 2023–January 2024) of 296 antenatal women at Dhulikhel Hospital used EPDS (≥ 12 for risk) and adapted 23-item PrimeScreen for Prime Diet Quality Score (PDQS, 0–46). Multivariable logistic regression adjusted for confounders estimated associations.

Feasibility of dietary screening in care was considered.

Key message: 22.3% screened positive for depression risk, with mean PDQS 24.7. Each PDQS point increase linked to 16% lower depression odds (aOR 0.84). Higher diet quality associates with reduced third-trimester depression, supporting brief antenatal dietary assessments for intervention.



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hypertension

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neoplasm

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endocrine

healthcare

systems

fragile

risk equity



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 November 2025.

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

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NCD Watch Nepal



Publications



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