Bridging the Gap in Headache Care: Insights from the IHS Survey in Nepal

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Introduction

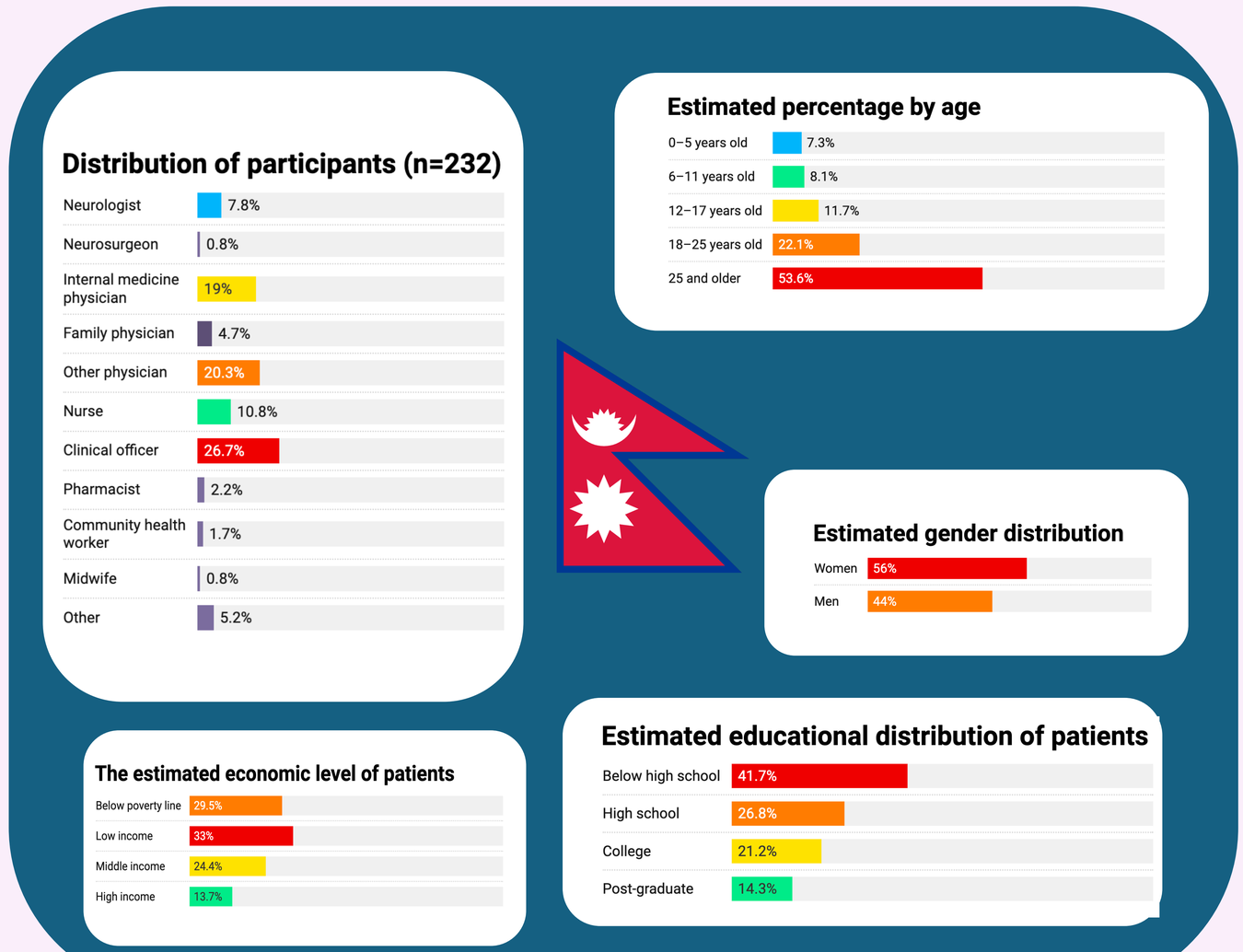
Headache disorders impose a substantial public health burden worldwide, with low- and middle-income countries (LMICs) like Nepal facing pronounced challenges due to limited healthcare infrastructure, inadequate provider training, and restricted access to essential treatments. This study aimed to assess the current state of headache care in Nepal, focusing on the distribution and training of healthcare providers, access to medications, and socioeconomic factors that affect treatment adherence.

Methods

A cross-sectional survey was conducted as part of a multinational joint initiative by the International Headache Society (IHS) and MENAA Headache Associations. Data were collected from 232 healthcare providers across Nepal using an adapted version of the HARDSHIP questionnaire. Descriptive and comparative analyses assessed geographic disparities, medication accessibility, and provider preparedness.

Results

- A total of 232 healthcare providers participated in the study. The distribution of professional roles included neurologists (7.8%), neurosurgeons (0.8%), internal medicine physicians (19.0%), family physicians (4.7%), other physicians (20.3%), nurses (10.8%), medical officers (26.7%), pharmacists (2.2%), community health workers (1.7%), midwives (0.8%) and others (5.2%).
- Most participants (88.4%) were employed in hospitals, while 7.8% worked in community-based healthcare facilities, and 2.2% were affiliated with community-based organizations.
- The estimated economic status of patients accessing healthcare services varied: 29.5% fell below the poverty line, 33.0% had low income, 24.4% were classified as middle-income, and 13.7% had a high income.
- Regarding patient education levels, 41.7% had an education level below high school, 26.8% had completed high school, 21.2% had a college education, and 14.3% had a postgraduate education.
- Healthcare providers estimated that their patient populations comprised 56% women and 44% men.
- The age distribution of patients was as follows: 7.3% were aged 0–5 years, 8.1% were aged 6–11 years, 11.7% were aged 12–17 years, 22.1% were aged 18–25 years, and 53.6% were 25 years or older.



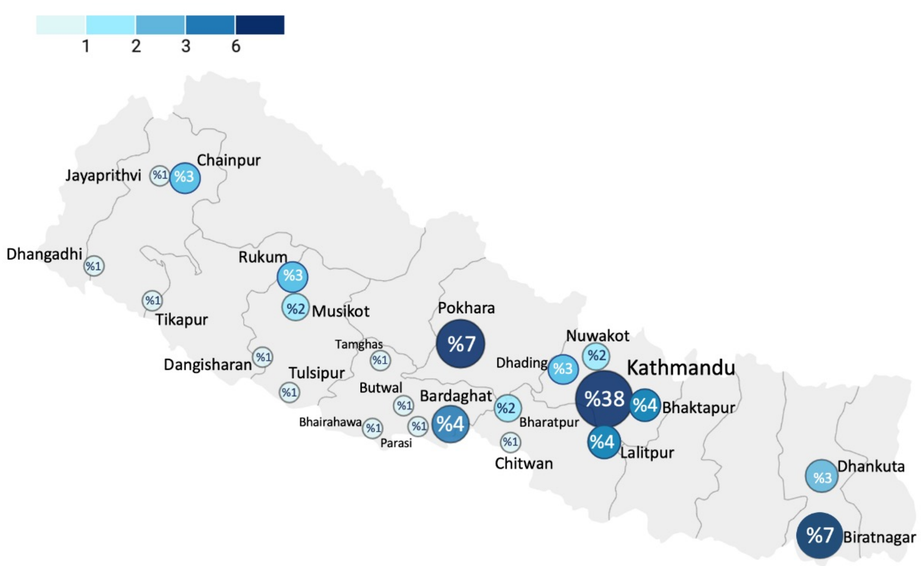


Figure 1. The map illustrates the distribution of healthcare providers participating in the survey across different regions of Nepal. The percentage values indicate the proportion of healthcare providers in each city relative to the study population.

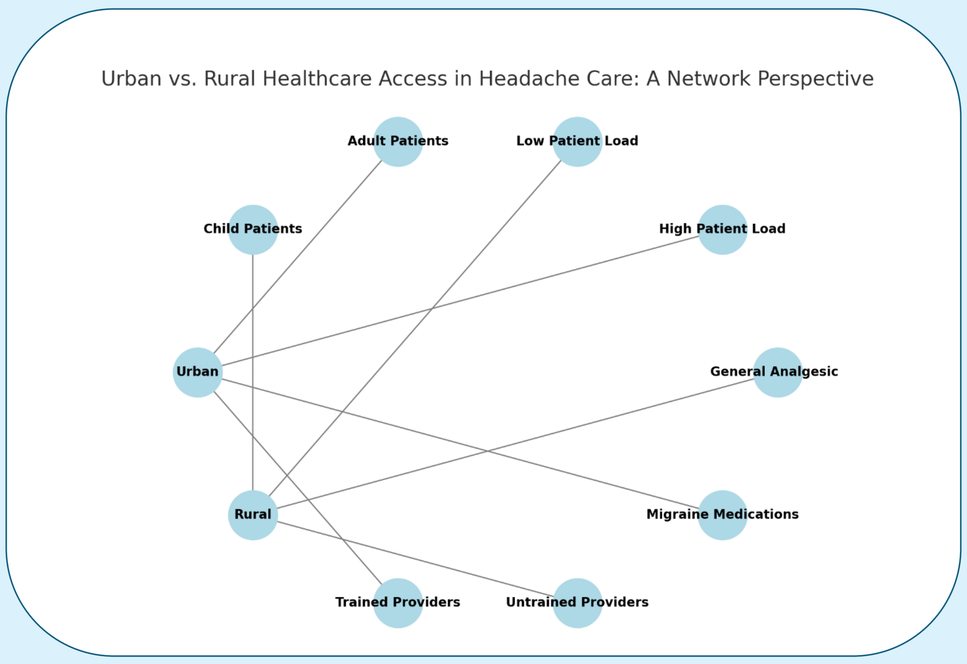


Figure 3. This network visualization illustrates the distinct relationships between urban and rural healthcare settings and key components of headache care in Nepal. Urban providers are more likely to be trained in migraine management, prescribe migraine-specific medications, and serve more adult patients. In contrast, rural providers rely more on general analgesics, serve pediatric populations, and report lower patient volumes, often without formal headache-specific training. The visual highlights systemic disparities and underscores the need for tailored strategies to balance service quality and access across regions.

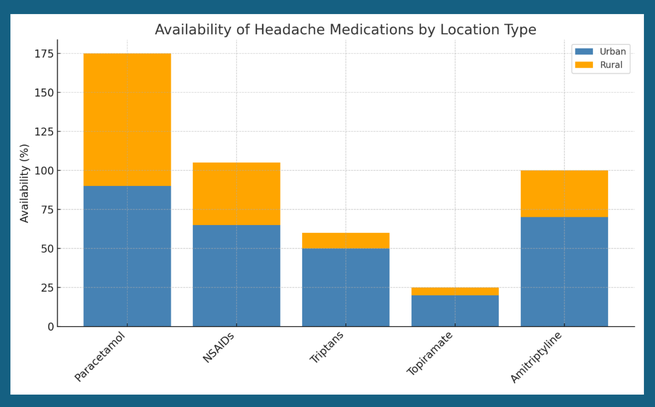


Figure 2. There is a comparative availability of five commonly used medications for headache treatment between urban and rural healthcare settings in Nepal. Urban providers reported greater access to all drugs, particularly migraine-specific agents such as triptans, topiramate, and amitriptyline.
Rural areas, in contrast, relied primarily on general analgesics such as paracetamol and NSAIDs, with limited access to specialized therapies.
These differences highlight geographic disparities in treatment access and underscore the need for enhanced pharmaceutical distribution in underserved regions.

CONCLUSIONS

This study comprehensively evaluates headache care in Nepal, highlighting disparities in healthcare provider distribution, training gaps, and economic constraints affecting treatment access.

Addressing these challenges through policy interventions, enhanced provider education, and expanded healthcare coverage is crucial for improving headache management in LMICs

Future research should focus on assessing the long-term impact of these interventions and exploring innovative strategies such as digital health solutions to enhance headache care accessibility in resource-limited settings.