



# Access to headache care in Azerbaijan: A Call for Enhanced Diagnosis, Awareness, and Treatment Accessibility

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## Introduction

Migraine is a prevalent and disabling neurological disorder that remains underdiagnosed and undertreated, particularly in low- and middle-income countries (LMICs). As part of the IHS/MENAA initiative, this study investigates urban-rural disparities in headache care in Azerbaijan, highlighting gaps in provider training, diagnostic accuracy, and access to evidence-based treatment.

## Methods

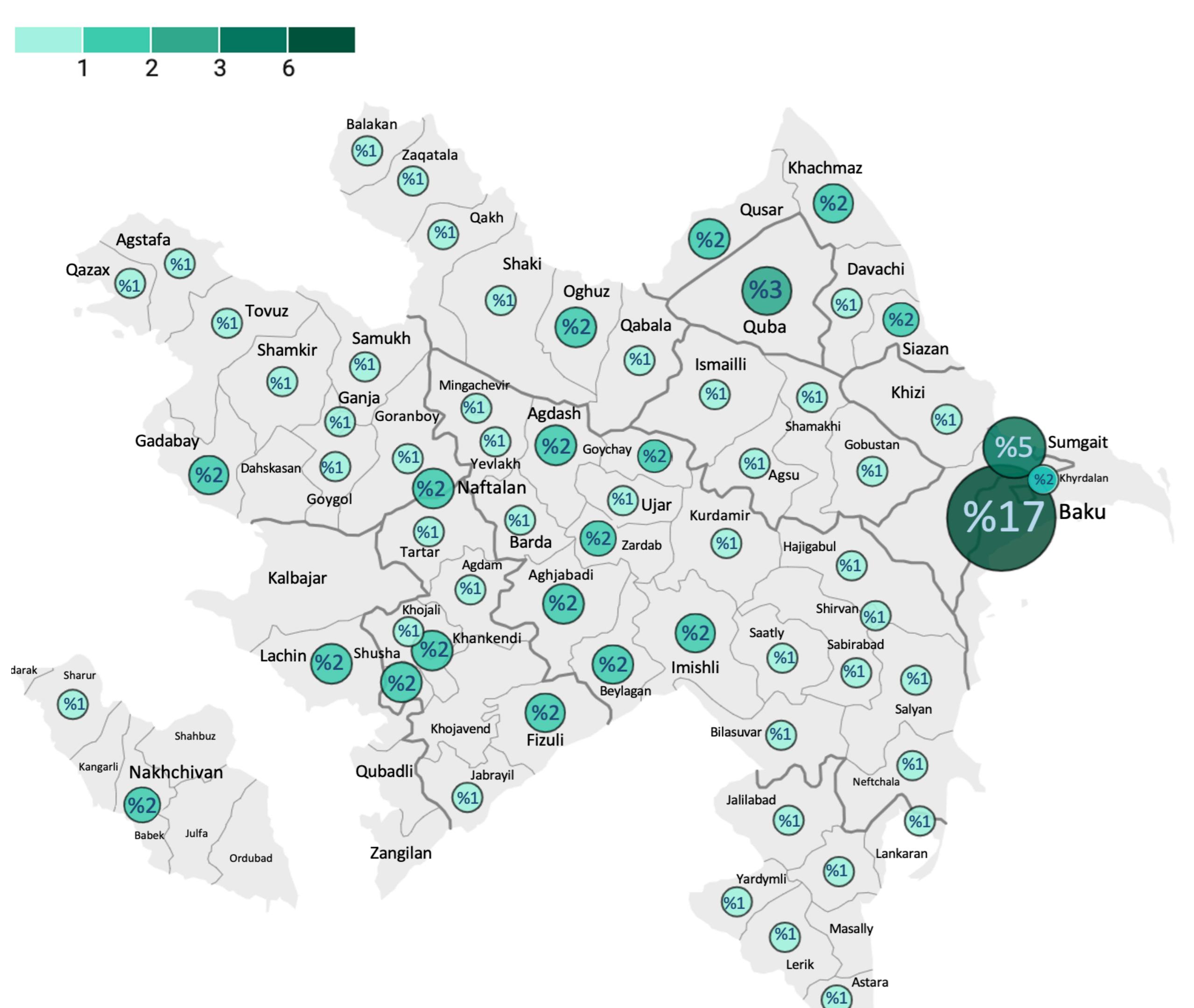
A national cross-sectional survey of 333 healthcare professionals (neurologists, general practitioners, pharmacists, pediatricians) was conducted using a modified HARDSHIP-based questionnaire covering provider training, treatment practices, access to medications and resources, and patient demographics. Descriptive and comparative analyses assessed regional and professional disparities.

## Results

- Among 333 respondents, 25.9% were neurologists, 27.9% general practitioners, 21.9% pharmacists, and 24.3% pediatricians. A total of 78.0% held a master's degree, while 22.0% had a bachelor's degree. Most participants (78.4%) worked in hospitals and 21.6% in pharmacies.
- Patients served were economically diverse: 23.4% below poverty, 40.0% low-income, 30.0% middle-income, and 6.8% high-income.
- Educational background of patients: 30.5% below high school, 36.9% high school, 15.8% college, 16.7% postgraduate. Gender distribution: 57.6% women, 42.4% men. Age groups: 15.1% aged 0–5, 7.5% aged 6–11, 4.3% aged 12–17, 26.7% aged 18–25, 46.3% over 25.
- On average, clinicians reported seeing  $4.6 \pm 7.4$  headache patients per week, with regional variation.

### Access to Medication and Treatment Affordability

- All participants (100.0%) reported that patients had to pay for medications, with no free coverage, yet all patients surveyed reported being able to afford their prescriptions. Despite economic constraints, no treatment discontinuation was attributed to financial hardship.



**Figure 1. Distribution of Surveyed Healthcare Providers in Azerbaijan.** Numbers indicate geographic distribution of healthcare providers who participated in the national headache survey. Note significant concentration of respondents in the Baku (17%) and its neighbouring urban centers Sumgait (5%) and Quba (3%). Also note the very low number of responders in rural areas.

## KEYPOINTS



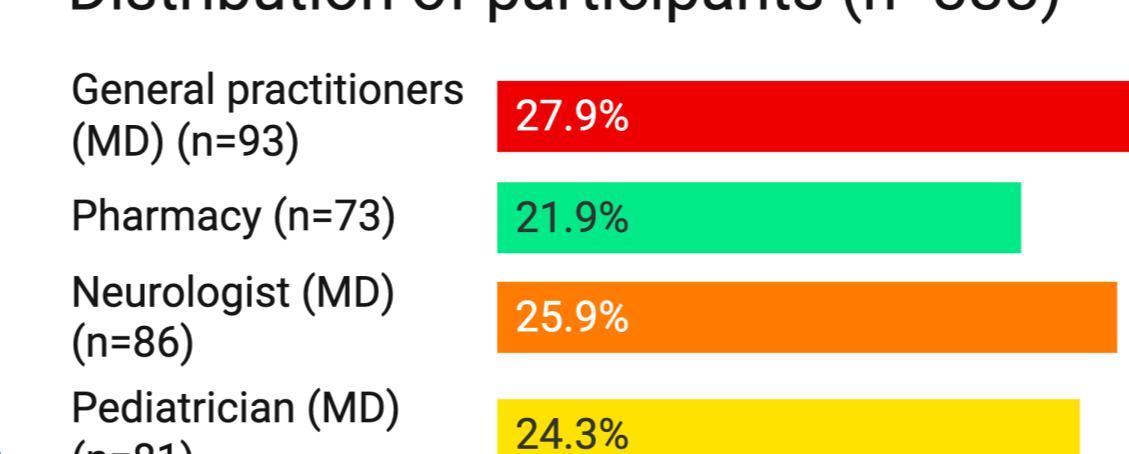
01 Limited access to healthcare professionals trained in headache care

02 Many medical doctors lack basic education in diagnosing and treating headaches

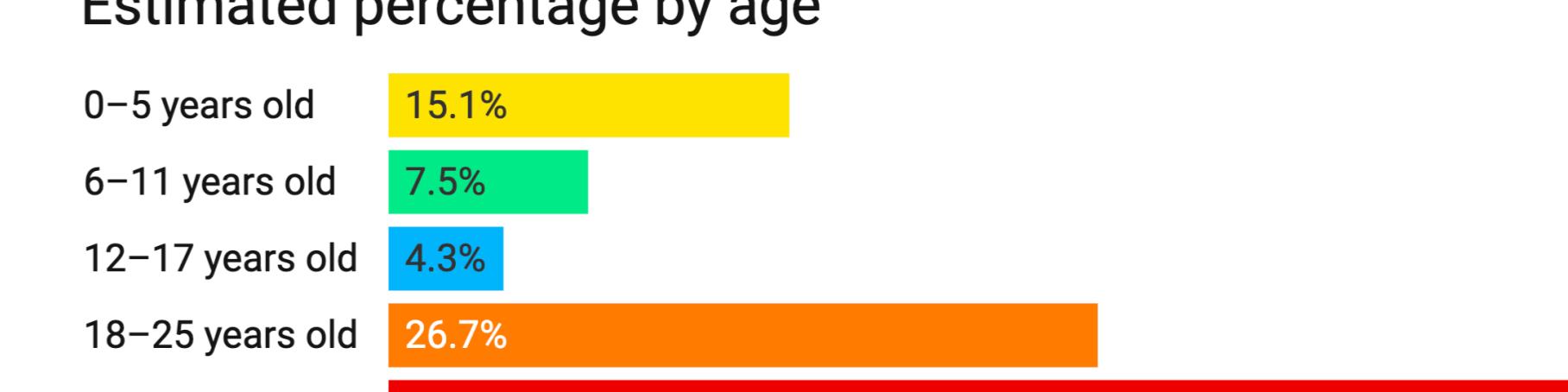
03 Low patient awareness of migraine and the importance of seeking help

04 85% of migraine sufferers do not have access to migraine medication, either because doctors do not prescribe it or due to high costs

### Distribution of participants (n=333)



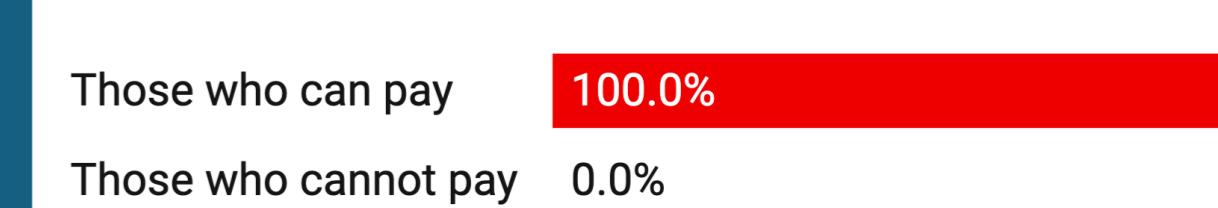
### Estimated percentage by age



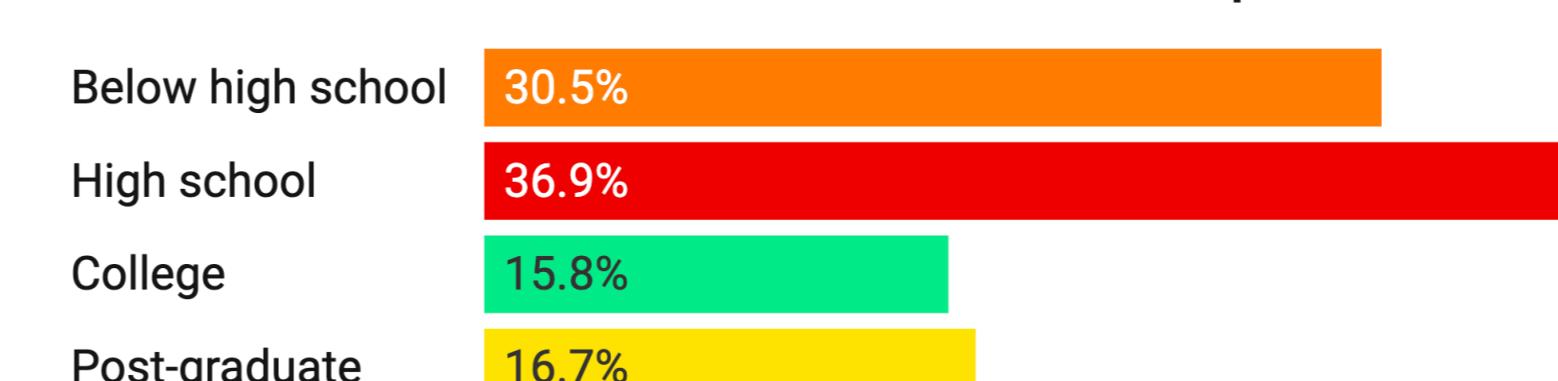
### Estimated gender distribution



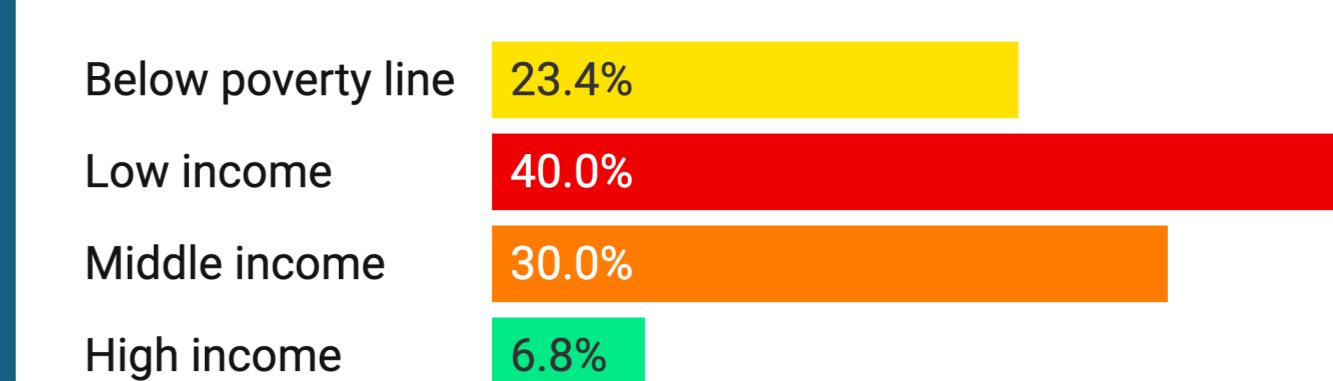
### Estimated percentage of patients who can afford medication



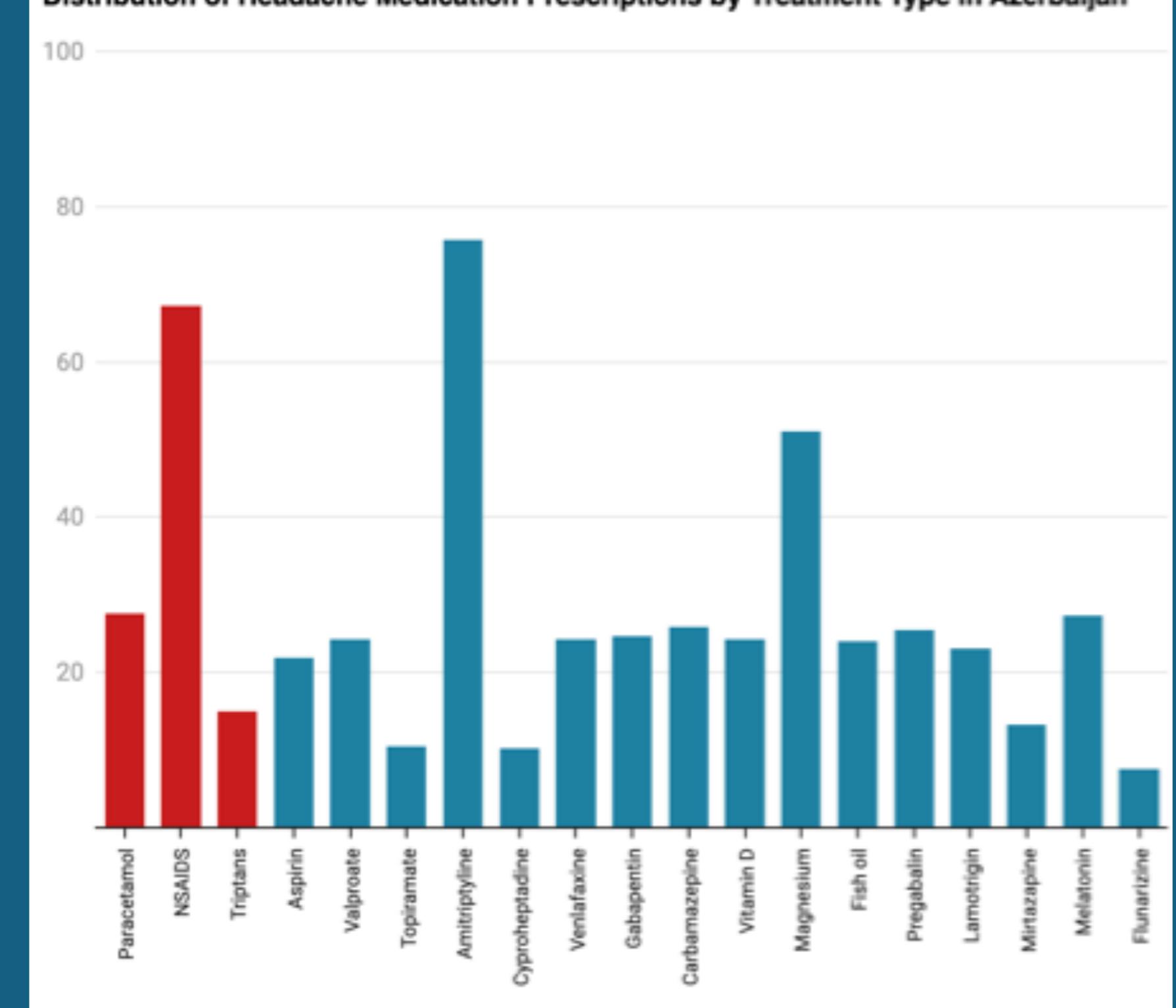
### Estimated educational distribution of patients



### The estimated economic level of patients



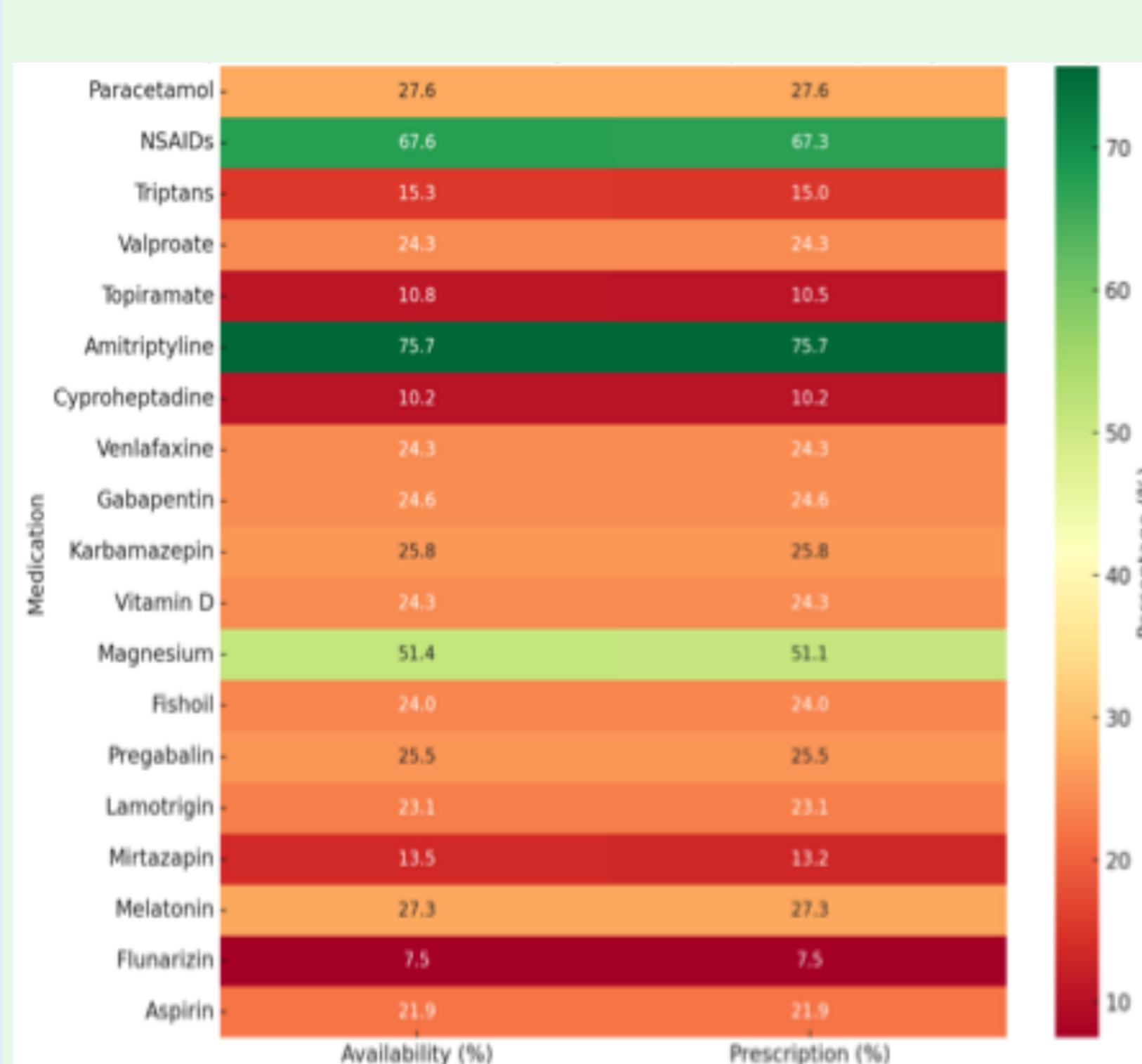
### Distribution of Headache Medication Prescriptions by Treatment Type in Azerbaijan



**Figure 2.** The limited use of migraine-specific acute treatments like triptans and the absence of newer preventive agents highlight ongoing gaps in access to guideline-recommended therapies. These findings emphasize the need to improve the availability of evidence-based pharmacological options and expand provider education in headache management

### Figure 3. Heatmap of Medication Availability and Prescription Frequency in Azerbaijan.

NSAIDs and amitriptyline were most available and prescribed, while triptans and some preventives like topiramate showed lower rates. These discrepancies highlight barriers in access and utilization, underscoring the need to align prescriptions with guidelines.



## CONCLUSIONS

More healthcare professionals should be trained, especially in rural areas

In urban centers, neurologists, pain specialists, pediatricians, and GPs treat headache patients, while in rural regions this role is mainly carried out by GPs and pharmacists

Integrating headache education into all medical and allied health curricula is the most direct and sustainable way to expand qualified care, particularly in underserved and rural areas

There is no access to free headache medications (e.g., triptans) and no availability of novel drugs such as CGRP mAbs, gepants, and ditans