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EDITORIAL

The Silent Exodus: Brain Drain of Pakistan's Health Workforce

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The emigration of intellectual manpower including skilled health professional from low- and middle-income countries (LMICs) to high-income destinations is among the most consequential yet underappreciated challenges in global governance.[1,2] Pakistan stands at a particularly precarious juncture. Over seven decades, the country has invested substantially in producing physicians, nurses, pharmacists, and allied health professionals, only to witness a disproportionate share of that human capital absorbed by wealthier health system. The World Health Organization (WHO) projects a global shortfall of 10 million health workers by 2030, with the burden falling overwhelming on LMICs.[3] There is a global shortage of Health Care Workers (HCWs). WHO projects a shortfall of 10 million HCWs by 2030, to which nurses and midwives alone contribute 4.8 million.[4] 22% of the world's population has 47% of the global HCWs. Density of HCWs is 6.5 times greater in Higher income countries (HICs). The most severe gaps lie in Lower Middle-Income Countries (LMICs), they are investing in health just to befit others i.e., "Reverse Subsidy".[5]

Pakistan's trajectory places it firmly within this crisis, yet the policy response has remained fragmented and reactive. Between 1972 and 2022, Pakistan's Bureau of Emigration and Overseas Employment (BE&OE) recorded the departure of over 31.1418 doctors, 12,853 nurses, and 5,839 pharmacists. These figures represent a conservative floor: informal, undocumented, and permanent immigration pathways remain uncaptured.[6]

Brain drain is multi-factorial economic, institutional, sociocultural drivers interact. Analyzing this dynamic is a battle between rhetoric vs reality. The data of Pakistani workers (skilled and unskilled) registered abroad for employment, shows the emigrant in 2022 was three times nearly as compared to 2021. The media and political rhetoric treated this as "Sudden Brain Drain", however the increased was "emigration post-Covid resumption" of migration halted during the pandemic.

The Anatomy of Departure Push and Pull in Concert

Brain-drain is best understood through Lee's classical push-pull framework of migration, [7] wherein negative conditions in the country of origin operate alongside positive incentives in destination countries. In Pakistan's case, both forces are usually potent.

Push Factors are well-documented across cadres. Low salaries which fail to keep pace with inflation,[6] inadequate residency slots, overburdened facilities, limited career progression, restricted access to subspeciality training, and a weak meritocratic culture compound professional frustration.[6,7] Gender-based barriers further constrain retention: female physicians, despite representing a growing share of medical graduates, face disproportionate attrition driven by societal and institutional pressure. Macro-level instability i.e., political

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volatility, security concerns, and economic uncertainty provide the final impetus.

Pull Factors are equally compelling. Destination countries, particularly the United Kingdom, United States, Canada, Australia, and Gulf states, offer salaries that dwarf Pakistani equivalents, superior postgraduate training environments, access to advanced technology, and structured career pathways. Active international recruitment, especially for nurses to Gulf states and for international medical graduates through established licensing routes in the UK and North America, transforms aspiration into accessible reality. [8,9] Survey data are unambiguous: among medical students in Peshawar, 67.55% expressed intent to emigrate, with the UK as the most preferred destination.[10] A parallel survey ranked the United States first among desired destinations.[11]

Systemic Consequences: Beyond the numbers

The consequences of sustained health workforce emigration are multidimensional and mutually reinforcing. The most immediate is service delivery delegation. Pakistan's nurse-to-doctor ratio stands at approximately 0.5:1 compared to the WHO recommended 3:1, a disparity that translates directly into compromised patient safety, extended wait times, and unmet need in rural and peri-urban settings.[12–14] Each departing specialist represents not only a service gap but a training vacuum, as the experienced clinicians are the primary educators of the next generation.

The academic and research consequences are equally serious. Sustained emigration reduces the critical mass of investigators required to sustain research programs, diminishes grant competitiveness, and accelerates the decline of Pakistani universities in global rankings.[9,15] The return on public investment in medical education is partially transferred to destination economies that bear none of the training cost. [9]

Pakistan is not without countervailing benefit. As the fifth largest recipient of remittances among LMICs receiving approximately USD 27 billion in 2023,[16,17] the country derives macroeconomic value from its diaspora.[8] Diaspora linkages can generate research collaborations, institutional partnerships and occasional return migration. However, for the health sector specifically, remittance flows do not reconstitute the clinical and academic capacity lost at the point of departure. "Brain gain" arguments, while valid at the macroeconomic level, do not offset the equity consequences for underserved populations dependent on a depleted public health system.[18,19]

An Imperative for Policy Action

The evidence base is now sufficient to move from diagnosis to intervention. Effective policy must operate at multiple levels simultaneously. In the near term, salary reform and working condition improvements particularly in public sector facilities represent the highest yield retention interventions. Expanding postgraduate training slots addresses the training quality push factor that consistently ranks among the top emigration motivators. Targeted retention strategies for nurses, including defined career ladders and bilateral recruitment agreements that protect domestic staffing floors, are urgently needed.

In the medium term, governance reforms that embed meritocracy, transparency, and professional safety into health system management are essential. Gender-sensitive workplace policies and structured support for female health professional will be critical to retaining a workforce cohort that constitutes the majority of medical graduates. Long term macroeconomic stabilization and health expenditure growth currently below 2% of GDP must underpin all retention strategies. Critically, Pakistan requires a robust heath workforce information system. Current data, largely derived from BE&OE registration records, capture formal employment emigration but miss permanent immigration channels, return migration, and informal flows. Disaggregated, longitudinal tracking by cadre, destination, and reason for departure is a prerequisite for evidence- based policy evaluation.

[20,21] In nutshell, Pakistan's health workforce brain drain is neither inevitable nor irreversible, but the situation warrants urgent, coordinated, and sustained policy attention. The silent exodus of doctors, nurses, and allied health professionals represents a compounding structural deficit one that erodes service delivery, academic capacity, and intergenerational health system resilience simultaneously. The challenge for policy makers, health system leaders, and the research community is to transform this diagnosis into actionable, equity-centered reform. The cost of inaction is measured not in statistics, but in lives.

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