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WORLD HEALTH ORGANIZATION INTERSECTORAL GLOBAL ACTION PLAN (WHO-IGAP); IMPLICATIONS AND IMPACT ON NEUROLOGICAL CARE IN PAKISTAN

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The discipline of neurology deserves more recognition in Pakistan, but unfortunately this is not the case. Besides some epidemiological studies of epilepsy in the 1980s and 1990s, no extensive epidemiological research has been conducted on neurological diseases in Pakistan. Thus, the exact incidence, statistics, or prevalence of many major neurological diseases is unknown. This lack of data can be attributed to the fact that national health policy rarely focuses on neurological diseases. The fact is there is only one neurologist per every one million people in Pakistan, even though neurologists are best trained to manage complex neurological diseases. Further, since this limited number of neurologists mostly practice in urban centers, it is exceedingly difficult to carry out community-based studies to establish the prevalence of neurological disorders.

Unfortunately, diseases like stroke, CNS infections (especially tuberculous meningitis) and epilepsy are still a huge burden in the country. Diseases such as polio, rabies and tetanus are still widespread and have a high mortality.^{1,2} For these reasons, the 75th World Health Assembly adopted the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders 2022–2031 (IGAP), which prioritizes brain disorders in health policymaking. Through IGAP, neurology will be given a greater importance at the national level and low and low- and middle-income countries (LMICs) will especially benefit since they are disproportionately affected by neurological disorders.³

From a global point of view, more than 70% of those affected by neurological disorders worldwide reside in LMICs, and this includes Pakistan.⁴ Diseases of the nervous system account for about nine million deaths per year, making it the primary cause of disability-adjusted life years (DALYs) and the second leading cause of death worldwide. In 2016, the largest contributors of neurological DALYs were stroke (42.2%), migraine (16.3%), dementia (10.4%), meningitis (7.9%) and epilepsy (4.9%). This burden is associated with health inequities. Global statistics in 2016 demonstrated that there were 52.9 million children younger than the age of five years that were affected by developmental disabilities. Of those children, 95% of them resided in LMICs. Of the 50 million people affected with epilepsy, 80% of them reside in LMICs. The treatment gaps in these countries surpass 75% in most low-income countries and are as much as 50% in most middle-income countries.⁵

Turning to Pakistan, despite a huge burden of neurological disorders in this country—including epilepsy, stroke, and dementias—research remains limited. The outpatient clinics of three major tertiary care hospitals in Pakistan were studied and epilepsy was identified as the most common neurological disease in the out-patient setting, along with behavioral disorders, and cerebral palsy as other frequent neurological disorders. Conducted in three tertiary care centers across Pakistan, a cross-sectional study on common diseases that presented at the ER reported that 11.6% of the diseases of the 171,176 children presented with a neurological disorder. The common causes were febrile fits (50.3%), encephalitis/meningitis (33.8%) and epilepsy/status epilepticus (9.1%).² Stroke has an alarming yearly incidence of 250/100,000 population in Pakistan, with the highest cause of death in Pakistan reporting for 67.3% among other neurological diseases; Alzheimer's disease and other dementias follow.⁷ In a study that took place in an urban slum in Karachi, Pakistan, stroke had an incidence of 21.8% (66.4% females).⁶ Another population-based study on 22500 participants showed the stroke prevalence rate of 1.2% in the province of Khyber Pakhtunkhwa, Pakistan. Psychiatric disorders such as depression and anxiety also make the charts as the prevalence in Pakistan was 34%, females being more commonly affected. The estimated prevalence of people with dementia in Pakistan is around 200,000.⁹

To raise neurological awareness and bridge the gap between research and policy, the 75th World Health Assembly was held in May 2022 in Geneva, Switzerland. During the assembly, 116 Member States and four international organizations supported the “Draft Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP).” On 27 May 2022, WHO Member States approved of the plan.¹⁰ IGAP will globally help improve awareness, prevention, and treatment of neurological diseases. This will be done through the prioritization of neurology in policies, particularly in LMICs which are inordinately impacted by neurological disorders.¹¹

Vision and action plan are provided at the end of this article. There are a multitude of global targets set by WHO-IGAP. To meet these aims, IGAP has put forward anticipated measures for the WHO Secretariat, WHO Member States, and national and international partners in various regions.¹⁰ Thus, the IGAP can be revolutionary for a lower-middle income country like Pakistan, where global targets and strategic objectives can be implemented.

According to a WHO presentation delivered at the 75th World Health Assembly, IGAP will be implemented in key focal areas on the country level. These areas include leadership and advocacy; technical products; country action; research and data; and collaboration. For a country like Pakistan to implement IGAP, the first step is policy dialogue to focus on the country’s needs in supporting the development of plans and policy. After this, strategic support can be achieved by bolstering health systems to maximize their capacity for neurological disorders in terms of health results, equity, and financial sustainability. Next, technical assistance can be done by identification and response of challenges and building of partnerships. Finally, service delivery, or coordination of the health cluster to include international and national partners, can provide direct provision of services and supplies in emergency settings.¹²

There is more that can be done at the country level. Countries such as Pakistan must recognize the specific needs of neurology on a national scale. Donor initiatives should take place for funding of essential neurological projects. Pakistan also needs more training and capacity building initiatives. Awareness raising campaigns for neurological diseases are crucial. Better quality research needs to be prioritized. It would be useful for Pakistan to ensure dialogue with donors to increase research investment. Guidance is needed in new diagnostic treatment as well as innovative technologies. For implementation it is important to collaborate with WHO and NGOs and wider health and social sectors on a global, regional and local level. It is important to have conferences, forums and meetings and country-level collaborations on initiatives. People who are affected and have lived experience of a neurological disorder can also be involved.¹²

IGAP has the potential to revolutionize neurological care in countries like Pakistan by 2031 by highlighting important issues and incorporating neurological management into national policy. This will be monumental for several reasons. Pakistan is the 5th most-populous country of the world, with a current population of more than 231 million.¹³ There is scarcity of neurologists in Pakistan (one neurologist per one million population) and about 75% of government hospitals are without neurologists.¹⁴

All in all, through this action plan, countries will create and finesse their national policies with the goal of better access to treatment. The overarching goal is to treat patients with a neurological disorder while related deaths and debilities decline. IGAP aims to counter and mitigate the stigma of neurological disease and encourage human rights.¹⁵

Vision and action plan of IGAP

The vision of the intersectoral global action plan on epilepsy and other neurological disorders 2022–2031 is a world in which:

- “• brain health is valued, promoted and protected across the life course;
- neurological disorders are prevented, diagnosed and treated, and premature mortality and morbidity are avoided; and
- people affected by neurological disorders and their caretakers attain the highest possible level of health, with equal rights, opportunities, respect and autonomy.”

The goal of the intersectoral global action plan on epilepsy and other neurological disorders 2022–2031 is to reduce the stigma, impact and burden of neurological disorders, including their associated mortality, morbidity and disability, and to improve the quality of life of people with neurological disorders, their caretakers and families.

The intersectoral global action plan on epilepsy and other neurological disorders 2022–2031 has the following strategic objectives:

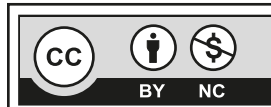
- “• raise policy prioritization and strengthen governance;
- provide effective, timely and responsive diagnosis, treatment and care;
- implement strategies for promotion and prevention;
- foster research and innovation and strengthen information systems; and
- strengthen the public health approach to epilepsy.”

REFERENCES

1. Wasay M, Khatri IA. Neurology in Pakistan: Growing burden, low on priority, and a hope to keep alive. *Neurology*. 2013Feb4;80(6):581–2.
2. Chand P, Sultan T, Kulsoom S, Jan F, Ibrahim S, Mukhtiar K, et al. Spectrum of common pediatric neurological disorders: A cross-sectional study from three tertiary care centres across Pakistan. *Pediatr Neurol*. 2023;138:33–7.
3. Wasay M, Younis S, Charway-Felli A, Basri H. World Health Organization (WHO)'s Intersectoral Global Action Plan (IGAP); implications for Asian and African countries. *J Neurol Sci*. 2023;444:120499.
4. Optimizing Brain Health across the life course: Who position paper [Internet]. World Health Organization. World Health Organization; [cited 2022 Oct 30]. Available from: <https://www.who.int/publications-detail-redirect/9789240054561>
5. Global, regional, and national burden of neurological disorders, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neurol*. 2019;18(5):459–480. doi: 10.1016/S1474-4422(18)30499-X.
6. Kamal AK, Itrat A, Murtaza M, Khan M, Rasheed A, Ali A, et al. The burden of stroke and transient ischemic attack in Pakistan: a community-based prevalence study. *BMC Neurol*. 2009 Dec 1;9:58. doi: 10.1186/1471-2377-9-58.
7. Sherin A, Ul-Haq Z, Fazid S, Shah BH, Khattak MI, Nabi F. Prevalence of stroke in Pakistan: Findings from Khyber Pakhtunkhwa integrated population health survey (KP-IPHS) 2016–17. *Pak J Med Sci*. 2020 Nov-Dec;36(7):1435–1440. doi: 10.12669/pjms.36.7.2824.
8. Awan S, Siddiqi AI, Asif A, Ahmed N, Brohi H, Jalbani S, et al. Spectrum of neurological disorders in neurology outpatients clinics in urban and rural Sindh, Pakistan: A Cross Sectional Study. *BMC Neurology*. 2019;19(1).
9. Awan S, Shafqat S, Kamal AK, Sonawalla A, Siddiqui S, Siddiqui F, et al. Pattern of neurological diseases in adult outpatient neurology clinics in Tertiary Care Hospital. *BMC Res Notes*. 2017;10(1).
10. Draft intersectoral global action plan on epilepsy and other neurological disorders (IGAP) [Internet]. Draft Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders (IGAP) // International League Against Epilepsy. [cited 2022 Oct 30]. Available from: <https://www.ilae.org/about-ilae/how-the-ilae-works/policy-and-advocacy/international-epilepsy-policy/draft-intersectoral-global-action-plan-on-epilepsy-and-other-neurological-disorders>
11. Grisold W, Karlshøj K, Freedman M, Gouider R, Guekht A, Lewis SL, et al. Brain Health as a global priority, view from WHO: Editorial from the World Federation of Neurology. *J Neurol Sci*. 2022Jul14; 440:120337.
12. 75th World Health Assembly . In: The Intersectoral global action plan on epilepsy and other neurological disorders adopted: Collaboration of WHO and NGOs Presentation. WHO;
13. The World Bank. Population, total – Pakistan. [cited 2023 Mar 1]. Available from URL: <https://data.worldbank.org/indicator/SP.POPTOTL?locations=PK>
14. Farooq A, Venketasubramanian N, Wasay M. Stroke Care in Pakistan. *Cerebrovasc Dis Extra*. 2021;11(3):118–121. doi: 10.1159/000519554;
15. Wasay M, Younis S, Charway-Felli A, Basri H. World Health Organization (WHO)'s Intersectoral Global Action Plan (IGAP); implications for Asian and African countries. *J Neurol Sci*. 2023;444:120499.

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