

TECHNICAL BRIEF

Addressing neurological conditions using an integrated life course approach

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Health systems have not adequately responded to the high burden caused by neurological disorders, which are the leading cause of disability and the second highest cause of death worldwide. This global burden is compounded by profound health inequities where treatment gaps exceed 75% in most low-income countries. The *Intersectoral Global Action Plan on epilepsy and other neurological disorders 2022–2031* (World Health Assembly (WHA) decision 75/11) charts a comprehensive life course approach to reduce the stigma, impact and burden of neurological conditions (including neurodevelopmental disorders) and their associated mortality, morbidity and disability. By doing so, it aims to improve quality of life for people with neurological disorders, and for their carers and families.

Key messages

- Neurological disorders cause mortality, morbidity and disability. The absolute number of people with neurological disorders requiring care has increased, and will continue to grow in coming decades owing to further reductions in child mortality, increased survival and life expectancy, and the ageing of populations worldwide.
- Considering the global burden that neurological conditions impose, access to services and support for such conditions is insufficient, especially in low- and middle-income countries (LMICs). This is due to barriers relating to human resources, infrastructure, information or service provision, help-seeking behaviour and governance-related issues.
- The *Intersectoral Global Action Plan on epilepsy and other neurological disorders 2022–2031*, based on the principle of universal health coverage, aims to improve access to care and treatment for people living with neurological disorders across a wide continuum. The action plan emphasizes promotion, prevention, diagnosis, treatment, rehabilitation and palliative care, and proposes care pathways that are responsive to the needs of people with acute and chronic neurological conditions as well as those living in humanitarian and emergency settings.
- Supporting appropriate health systems is crucial for improving quality of life for people living with neurological disorders. These health systems should promote high-quality care, provide financial and social protection benefits, and ensure respect for, and fulfilment of, the rights of people with neurological disorders. As such, comprehensive responses aimed at tackling neurological disorders should consider both social and economic determinants of health.
- With concrete actions, clear and measurable indicators, and the commitment of national and international stakeholders, great advances can be made in preventing neurological disorders, delivering appropriate treatment and care, and reducing the burden of these conditions for individuals, families and communities.

Background and challenges

The five largest contributors to the global burden caused by neurological conditions in 2016 were stroke, migraine, dementia, meningitis and epilepsy. The numbers on these conditions are staggering. In 2019, there were 101 million cases of stroke, and the condition caused 143 million life years lost and 6.55 million deaths. In addition, dementia alone is currently the seventh leading cause of death with more than 55 million people affected, 60% of whom live in LMICs.

Globally in 2016, 52.9 million children younger than 5 years had developmental disabilities, and 95% of these children lived in LMICs. People living with neurological disorders and associated disabilities continue to experience discrimination and human rights violations. Neurological disorders also lead to increased costs for governments, communities, families and individuals, as well as to loss of economic productivity.

Many neurological conditions are preventable. The early stages of life, including the foetal stage and birth, are a particularly important time for promoting brain health and preventing neurological disorders that can have lifelong consequences. Good physical health, healthy environments, safety and security, learning and social connections, and access to high-quality services, are all known to impact brain development in early life, and brain health across the life course. Despite this, in 2017, 43% of children under the age of 5 years in LMICs (nearly 250 million children) were at risk of not reaching their developmental potential due to extreme poverty and stunting.

Approximately 70% of people with neurological disorders live in LMICs, where their needs are poorly recognized. For example, only 28% of low-income countries reported that they have a relevant dedicated policy. Additionally, the number of health workers specialized in neurological health is insufficient to tackle treatment gaps, especially in low-income countries where the median neurological workforce is 0.1 per 100 000 people.

The diagnostic rate for some neurological disorders in these countries is also very low; for example, the median diagnostic rate for dementia in LMICs is 21%, compared with 58% in high-income countries. Another challenge is reduced access to effective medicines for neurological disorders; for example, around 85% of people with epilepsy do not receive appropriate medication, despite it being a very cost-effective form of treatment.

Emerging and re-emerging outbreaks of pathogens, such as COVID-19, Zika virus, measles, rabies and Japanese encephalitis, have highlighted the growing relevance of neurology to global public health. The high incidence of mortality, morbidity and often devastating complications associated with these infections, and the economic impact on those affected and the wider community, needs to be better recognized and addressed.

The challenges around neurological disorders warrant an integrated, person-centred approach for achieving better promotion, prevention, diagnosis, treatment and care. For this reason, the *Intersectoral Global Action Plan on epilepsy and other neurological disorders 2022–2031* takes a life course approach, in which various sectors of society such as health, social protection, labour and education, work together to provide care for people with neurological disorders throughout their lifetimes, striving to improve health and maintain dignity.

Key actions and policy recommendations

The following policy recommendations aim to accelerate progress towards the objectives of the WHO action plan:

- Prioritize policy and strengthen governance for neurological disorders.
- Provide effective, timely and responsive diagnosis, treatment and care for neurological disorders.
- Implement strategies for the promotion of brain health and prevention of neurological disorders.
- Foster research and innovation and strengthen information systems on neurological disorders.

More specifically, governments should take the following key actions to address the challenge posed by neurological conditions:

- **Advocate** for increased political commitment and mobilization of resources to support policies prioritizing neurological conditions.
- Develop comprehensive intersectoral **policies, plans and legislation** based on scientific evidence and aligned with international human rights standards.
- Support sustainable **funding** for policies, plans and programmes for the prevention and management of neurological disorders.



- Develop evidence-based **care pathways** of coordinated health and social services for people with neurological disorders, across the life course and within a universal health care approach, in order to enable access to high-quality care, when and where required.
- Promote the inclusion, updating and availability of **medicines, diagnostics and other health products**, such as assistive technology, biological products, and cell and gene therapy, for the prevention, early diagnosis and treatment of neurological disorders.
- Strengthen the **workforce capacity** in health and social care to rapidly identify and address neurological disorders, including common conditions that may coexist in one person.
- Develop or strengthen mechanisms to **support carers** of people with neurological disorders.
- Promote and emphasize brain health across the life course, including through a focus on **healthy behaviour**.
- Implement **infectious disease** management, eradication/elimination/control and immunization programmes.
- Implement policies and evidence-based practices to **prevent head and spinal trauma and associated disabilities**.
- Reduce **exposure to environmental risks**, such as air pollution, heavy metals, pesticides and industrial solvents, for optimal brain health and the prevention of neurological disorders.
- **Optimize brain development** in the formative stages of life by creating the conditions for nurturing family care and parenting support, through public policies, programmes and services.
- **Invest in research** on neurological disorders that is rooted in equity, diversity and inclusiveness, with an increased engagement of people with neurological disorders.
- Integrate the monitoring of neurological disorders into routine health **information systems** and across all levels of care.

References and resources

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