

The neurology revolution

As highlighted in your Editorial,¹ WHO's Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders 2022–2031 (IGAP)² marks a turning point and will represent a revolution in neurology. The non-communicable disease (NCD) Countdown 2030 reported that the risk of dying from neurological disorders between birth and 80 years of age has increased for more than half of countries, making these disorders the fastest-growing cause of death among NCDs.³ By 2040, neurological diseases are projected to contribute to an increase of approximately 50% in disability-adjusted life-years (DALYs).⁴

For several neurological disorders (eg, dementia, multiple sclerosis, and migraine) women can be disproportionately affected, both as patients and in caregiving roles. The burden of neurological diseases in childhood is also important to consider because of the negative effects of these disorders on the developing brain. Furthermore, the burden of many neurological disorders is unfavourably skewed towards low-income and middle-income countries (LMICs).⁵ WHO reported in its *Neurology Atlas* a global dearth of neurologists, which is more pronounced in LMICs than in high-income countries. The report showed that in LMICs there were only three adult neurologists per 10 million people, compared with 475 adult neurologists per 10 million people in high-income countries. In many LMICs there is minimal awareness and widespread social stigma about many neurological disorders.

Many neurological conditions share risk factors and preventive measures. For example, stroke and dementia—two leading causes of neurological deaths and DALYs—share risks and protective factors, presenting a unique opportunity for shared preventive strategies. Risks of disease-specific advocacy include dividing public

attention, confusing policy makers, losing momentum, and wasting scarce resources. However, a strong argument exists to unite various stakeholders in working to advance common goals. The IGAP unifies such an effort with its aim to reduce disability due to neurological disorders, in line with the biopsychosocial approach of WHO's International Classification of Functioning, Disability and Health (ICF), for which functioning and disability are considered the result of interactions between neurological conditions and contextual factors across the life course.

Neurological health, particularly brain health, holds the keys to attainment of the third UN Sustainable Development Goal (SDG), and indeed of all SDGs. The advent of the neurological revolution, leveraging WHO's IGAP, is propelling neurology to the forefront of the global health and developmental agenda by harmonising global neurology activities and advocacy efforts into a united powerful voice. Each country will have to identify the key neurological disorders to target to reduce the neurological burden by 2030. Neurology ambassadors are needed in all countries to harness global resources and facilitate interdisciplinary collaboration.

All authors declare no conflict of interest. MOO and ML contributed equally. A full list of the Neurology Revolution collaborators is in the appendix.

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- 1 The Lancet Neurology. WHO launches its Global Action Plan for brain health. *Lancet Neurol* 2022; **21**: 671.
- 2 WHO. Intersectoral global action plan on epilepsy and other neurological disorders 2022–2031. 2021. <https://www.who.int/publications/m/item/intersectoral-global-action-plan-on-epilepsy-and-other-neurological-disorders-2022-2031> (accessed Sept 6, 2022).
- 3 NCD Countdown 2030 collaborators. NCD Countdown 2030: pathways to achieving Sustainable Development Goal target 3.4. *Lancet* 2020; **396**: 918–34.
- 4 GBD 2016 Neurology Collaborators. 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**: 459–80.
- 5 Winkler AS. The growing burden of neurological disorders in low-income and middle-income countries: priorities for policy making. *Lancet Neurol* 2020; **19**: 200–02.



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For more on the **NCD Countdown 2030** see <https://www.ncdcountdown.org/>

For more on **sex and gender differences in neurological disorders** see <https://www.womensbrainproject.com/>

For **WHO's Neurology Atlas** see <https://www.who.int/publications/i/item/atlas-country-resources-for-neurological-disorders>

For more on **neurology in LMICs** see [In Context Lancet Neurol](https://www.who.int/publications/i/item/atlas-country-resources-for-neurological-disorders) 2019; **18**: 1078–79

For more on the **global prevention of stroke and dementia** see [In Context Lancet Neurol](https://www.who.int/publications/i/item/atlas-country-resources-for-neurological-disorders) 2020; **19**: 487–88

For more on **WHO's ICF** see <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>

See Online for appendix

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Supplementary appendix

This appendix formed part of the original submission. We post it as supplied by the authors.

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Appendix

The Neurology Revolution collaborators

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