

Quantifying the value of action for the top 10 neurological disorders



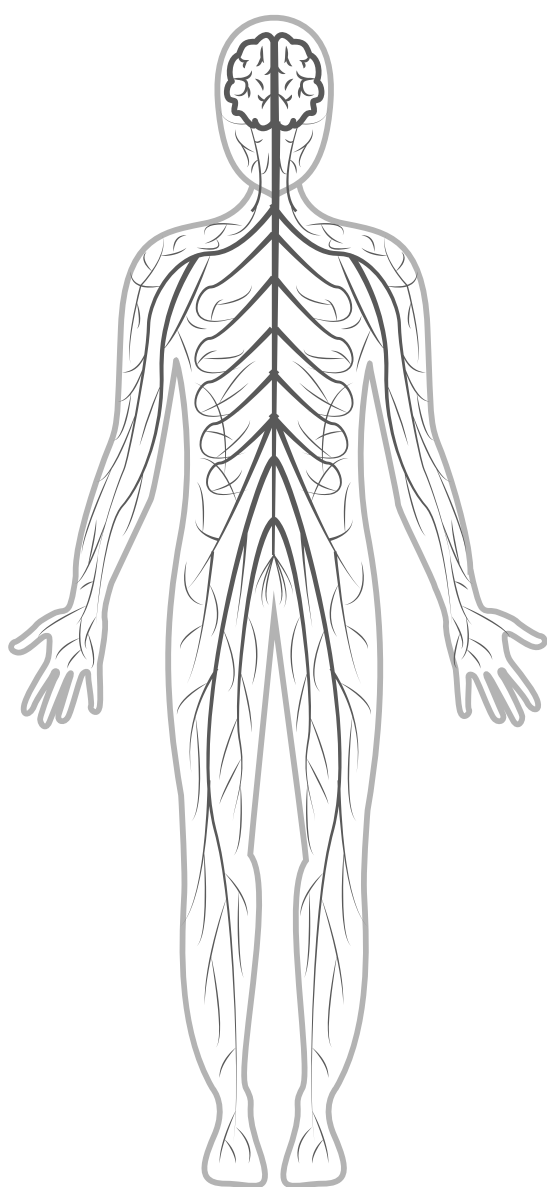
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Neurological disorders pose enormous challenges to economies around the world

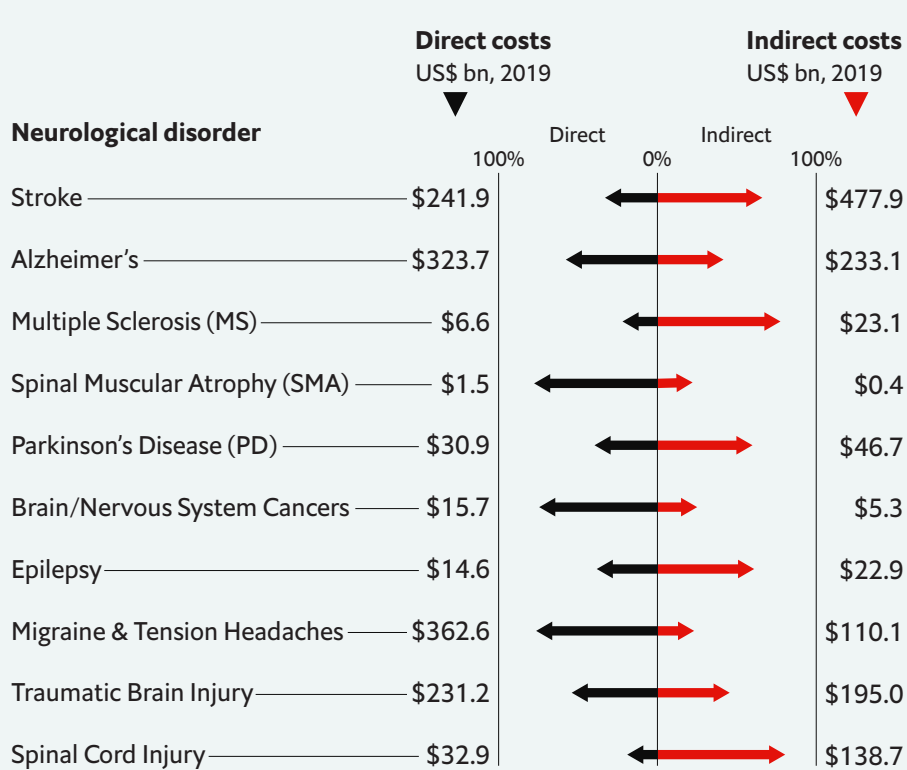
Economist Impact analysis demonstrates potential savings from scaling up interventions from the current state of care for 10 of the most epidemiologically burdensome neurological disorders worldwide, including through prevention, treatment and rehabilitation.

Productivity losses and caregiver needs contribute an underappreciated burden that results in significant costs to society.



50% of the total cost of neurological disorders is indirect

- **Direct costs** = healthcare costs for all services provided (ie, medication, preventive services, etc.)
- **Indirect costs** = costs incurred that are not directly attributable to medical disease management (ie, caregiver productivity losses, early retirement, etc.)



Figures represent cost breakdown of neurological disorders for the 11 countries in Economist Impact's analysis: Brazil, China, Colombia, Germany, Italy, Japan, Kenya, Lebanon, Romania, United Kingdom and United States.

Expanding access to interventions can reduce the economic impact of neurological disorders on individuals and families, carers, employers, and wider society

Scaling up: potential savings from baseline by 2030...

Figures represent total potential savings across the 11 countries in Economist Impact's analysis: Brazil, China, Colombia, Germany, Italy, Japan, Kenya, Lebanon, Romania, United Kingdom and United States.

\$727bn
Rehabilitation

\$911bn
Treatment

\$2.4tn
Prevention

Increasing access to preventive, treatment and rehabilitative services for neurological disorders yields large social and economic benefits

These benefits accrue over time, however each disorder responds differently to scaling up interventions.

Stroke

Stroke is the second leading cause of death and a major cause of disability worldwide.¹

- **Implementing rehabilitation in the US will save \$650bn** from baseline by 2030.
- **Implementing treatment in the US will save \$469bn** from baseline by 2030.

Economist Impact savings projections to 2030 are presented for the US only as these were the most robust, consistent and reliable data available.



Alzheimer's disease

The prevalence of Alzheimer's disease is expected to reach 139 million globally by 2050 without intervention. **40% of cases may be prevented or delayed** with appropriate intervention.^{2,3}

- In the US, **scaling up prevention will save \$863bn** from baseline by 2030.

Multiple sclerosis

Multiple sclerosis primarily impacts people in their productive prime (30s and 40s) and can result in 15-30% lower employment levels, productivity and earnings than their counterparts.^{4,5,6}

- Depending on the country, **scaling up treatment will save \$1bn - \$12bn** on productivity losses from baseline in a single year.

Spinal muscular atrophy

Spinal muscular atrophy affects around 1 in 10,000 births and the cost of care is often significant.^{7,8}

- In the US, **scaling up treatment for spinal muscular atrophy type 1 will yield \$1.6bn in savings** compared to baseline, by 2030.

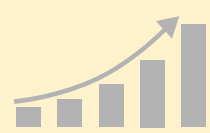
Parkinson's disease

Over the last 20-30 years, the number of people with Parkinson's disease has more than doubled.⁹

- **Scaling up treatment and rehabilitation services** for Parkinson's disease will yield **\$2bn in savings due to treatment** and **\$31bn in savings through rehabilitation** by 2030 in the US.



Conclusion



Action, particularly over time, has immense value. Ensuring effective and timely diagnosis, treatment, rehabilitative and supportive care is urgently needed to maximise health and economic benefits more widely.

Roche Products Limited conducted a factual accuracy check of this infographic, but any decisions to incorporate information were made solely at the discretion of Economist Impact.

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