

The Global Economic Impact of Brain Diseases and Disorders

A look at how brain diseases impact individuals all over the world

Brain diseases and disorders affect billions of people around the world and cause a significant ripple effect on the global economy. Why? Because brain diseases and disorders are found in every part of the world and in every age group, nationality, gender and socioeconomic class. Not only do they impact the person living with the disease, but they also affect caregivers and local resources.

By understanding the global economic impact of brain diseases, researchers and doctors are more equipped to improve the lives of those affected by the disorders.



Global Economic Impact

Inadequate funding, resource scarcity, and limited access to professionals and treatments are major barriers to care for brain disease, especially in low- and middle-income countries.

Put simply, the national burden of brain diseases is higher when gross domestic product is lower.

Global Economic Impact of Brain Disease Facts

- **43.4%** of the world's population cannot reach a healthcare facility by foot within an hour.
- **8.9%** of the world's population are unable to reach healthcare within one hour on motorized transportation.
- **55%** of hospitals around the globe do not have essential medications available at all times.

In developed countries, there are

- **10- 100 neurologists** per 1,000,000 people in high-income countries.
- **1 neurologist** per 1,000,000 people in middle-income countries.
- **.3 neurosurgeons** available per 1,000,000 people in low-income countries.



Digging Deeper: Global Economic Impact of Migraine

To quantify the global impact of brain disease, let's shift our focus to one common example of a disabling brain disease: migraine.

Migraine affects more than 3 billion people around the globe. According to studies conducted over the last two decades, migraine has cost employers in the United States alone at least \$13 billion and employers in Europe €27 billion. Migraine can cause individuals to miss work, called absenteeism, or go to work ill and not be able to perform their best, called presenteeism. Both of these result in lost productivity. Headache disorders are the leading cause of disability among those under 50 years old, impacting everything from work productivity to paying bills.

A recent study of a multinational information technology company in Japan found that 17% of the workforce had migraine, and the cost of both absenteeism and presenteeism was approximately \$350 million per year.



Personal Economic Impact

Brain diseases and disorders affect every aspect of a person's life. Symptoms can make maintaining a job difficult, even removing people and caregivers from the workforce altogether. Accessing care for neurological noncommunicable diseases can be costly, with barriers that are oftentimes outside of an individual's control. Each of these factors place a person with a brain disease in a worse economic position than someone without a brain disease. Our goal is to continue to shine a spotlight on the widespread impact of brain disease.

Learn more about the importance of brain health by visiting our website at wfneurology.org/brain-health-initiative.