

FACT SHEET:

The burden of neurological diseases on Europe

Neurological diseases are common, and neurologists are the ones who care for patients suffering from these diseases in most European countries. The European Academy of Neurology (EAN) is conducting a research project to estimate the current situation regarding neurological diseases and the care of neurology patients in Europe (NeuroStructure and NeuroCare). The study of the current burden of neurological disease in Europe (part of NeuroStructure) is based on the database of the Institute for Health Metrics and Evaluation (IHME), University of Washington, Seattle, USA, from which we have extracted data. Additional data on neurologists have been taken from the EAN database.

Here we present some key data from this study reflecting the situation of neurology in Europe in 2017.

For the purposes of this fact sheet, Europe is statistically considered as the countries of the European Union (EU28), the Western, Central and Eastern subregions of Europe according to the IHME¹ and WHO-defined Europe². The latter coincides with the area of member societies of EAN.

The table shows numbers illustrating the burden of neurological disease in Europe.

Region	Population	Prevalence of neurological diseases	Deaths due to neurological disease	DALYs	Number of neurologists ³	Number of EAN associate members
European Union (EU28)	512,355,000	307,859,199	1,116,038	21,046,899	43,306	19,166
Western Europe	432,969,000	260,827,756	892,162	16,499,342	36,009	15,465
Central Europe	114,803,000	67,368,506	300,317	6,024,036	9,031	5,529
Eastern Europe	210,199,000	130,372,328	604,144	13,110,119	29,016	11,024
WHO Region Europe	925,631,000	542,935,521	1,981,463	41,319,938	83,397	35,798

¹The IHME Global Burden of Disease group (GBD) divided the WHO European countries into the following categories as shown in the factsheet:

Central Europe: Albania, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia. Eastern Europe: Belarus, Estonia, Latvia, Lithuania, Moldova, Russia, Ukraine.

²Western Europe: Andorra, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK.

WHO-Europe further includes: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Turkey and Uzbekistan.

³The following countries do not have a neurological Society: Andorra, San Marino, Malta, Monaco. We are not aware of neurological Societies in Turkmenistan and Tajikistan. For these countries numbers of neurologists are not included.

Many neurological diseases such as stroke and Alzheimer's can be fatal. Others, such as headaches, are not deadly but are chronic and cause major disabilities. Neurological disease is the number one disease category causing disability in the world and ranks number three in Europe. The disability adjusted life-year (DALY) is the generally accepted epidemiological measure of disease burden and it covers years-of-life lost (YLLs) and years lived with disability (YLDs) due to disease. It is noteworthy that very common neurological diseases such as restless legs syndrome (prevalence approx. 5%) or essential tremor (prevalence: approx. 1%) are not yet included in the IHME database.

Currently, approximately 85,000 neurologists in EAN/WHO region Europe provide care to these patients, which corresponds to approximately 10,000 patients per neurologist. However, there are huge disparities across European countries, ranging from 2,500 patients to 46,000 patients per neurologist.

We conclude:

- More than half of the European population (approx. 60%) suffers from a neurological disease, as - epidemiologically - prevalence roughly corresponds to patient numbers.
- The death and disease burden due to neurological diseases is high and ranks number three among all disease groups in Europe.
- Only roughly 85,000 neurologists are available to provide care for around 900 million citizens across Europe, which is a large number compared with other macroregions of the world and is not enough to fulfil current needs.

**More neurologists are needed to serve the huge number of patients.
EAN and its 47 member societies are striving to improve the situation
of patients with neurological diseases.**



Join us to promote
excellence in neurology!

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