

# Volume 14 - Issue 4, 2014 - Editorial

### **Guest Editorial**

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On 22July 2014, the World Federation of Neurology (WFN) launched World Brain Day, dedicated to bringing more attention to brain health and the prevention of brain diseases. Brain disorders, comprising mental, neurological and substance-use conditions, constitute 13% of the global burden of disease (Collins et al. 2011), surpassing cardiovascular disease and cancer.

## Disease Burden

The burden of brain disorders and neurological diseases is underestimated, and under-recognised, with consequent under-resourcing and a lack © For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.

of comprehensive and coordinated preventive, diagnostic and therapeutic measures. Stroke and traumatic brain injury, the two most important causes of neurological disability around the world, are often not appreciated as neurological disorders.

The WFN promotes high quality brain health worldwide: political and funding priorities need to shift, and governments and international organisations need to prioritise brain health (Anon 2011).

Neurological diseases are a major cause of death. Worldwide, stroke is the second commonest cause of death after ischaemic heart disease (Lozano et al. 2012). One to two percent of the global population suffers from a disability related to traumatic brain injury. Neurological diseases are responsible for 4.5-11% of all disease burden, depending on whether one looks at low- or high-income economies (WHO 2004). Lower-middle-income countries are hit the hardest.

As with stroke the incidence of neurological conditions, such as dementia, Parkinson's disease and other neurodegenerative disorders increases with age, and the ensuing disability adds to the burden of care, management and cost. Ageing is combined with an increase of cognitive disorders and dementia in developed countries, whereas neurological infection and epilepsy are dominant in the developing world.

The number of disability-adjusted life years (DALYs) attributable to neurological illnesses – years lost due to premature death combined with the equivalent years of healthy life lost through poor health or disability – is expected to rise from 92 million worldwide in 2005 to 103 million by 2030. Several chronic diseases such as diabetes cause peripheral neuropathy leading to neurological disability. Infectious diseases such as leprosy are still an important issue, and poliomyelitis still causes disability in some countries.

#### Access to Healthcare

Although considerable progress has been made in diagnosis and therapy, great disparities in the availability of treatment persist. According to the World Health Organization (WHO), less than 9 percent of the world's population has access to more than one neurological hospital bed per 10,000 inhabitants. In developed countries there is an average of three neurologists for every 100,000 people; in low-income countries the number is only 0.03 per 100,000. For many neurological disorders, inexpensive but effective treatments are available (WHO 2004): up to 70 percent of people with epilepsy could become seizure-free with antiepileptic drug treatments, but more than 80 percent of patients remain untreated in most low-income countries (Birbeck et al. 2014).

### Cost

Brain disorders are costly: in Europe the annual costs of brain diseases for EU economies are estimated to be €798 billion, 60% attributable to direct costs and 40% to lost productivity. Neurological disease alone accounts for €336 billion (Gustavsson et al. 2011; Olesen et al. 2012).

### The World Federation of Neurology

The WFN has 117 member organisations, and fosters quality neurology worldwide, through cooperation, education and biennial world congresses. WFN teaching centres have been established in Africa, and more are planned for Asia.

The WFN actively promotes research, and cooperates with neurological specialist societies worldwide, acting in partnership with a range of committed international neurological specialty organisations, such as the World Stroke Organization, the Movement Disorder Society, the International League Against Epilepsy, the Peripheral Nerve Society and others. The WFN awards grants for educational and scientific projects annually, and neurologists from member states can apply for junior travelling fellowships. The WFN, as a global society, promotes the best neurological training for neurologists worldwide (Steck et al. 2013), and supports the great efforts made by neurologists worldwide to improve the lives of patients with neurological diseases. The WFN is actively cooperating with WHO, and is involved in the development of the new ICD 11.

The WFN provides a website, actively uses social media, and publishes an online newsletter *World Neurology* (free to download on the WFN websitehttp://www.wfneurology.org/) and a scientific monthly publication *Journal of the Neurological Sciences*.

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