

Headache is the third leading cause of disability in the world

Three years ago, the medical journal Lancet published the third Global Burden of Disease (GBD) study (GBD 2010). We wrote then of the political significance, and promise, of this report for people with headache. Migraine, an under-recognised, under-treated headache disorder affecting one in six adults, was according to this authoritative study the seventh highest cause of disability worldwide. Policy-makers must surely take note.

Recently there was more, of even greater importance, from GBD2013. Published again in Lancet, its findings on headache were threefold: migraine is now the sixth highest cause of disability worldwide; medication-overuse headache (MOH), included in GBD for the first time, enters the top twenty causes at 18th; headache disorders together are the third cause of disability worldwide (see Table).

The top 20 leading causes of YLDs in GBD2013	YLDs
1. Low back pain	72,318,000
2. Major depression	51,784,000
3. Iron-deficiency anaemia	36,663,000
4. Neck pain	34,348,000
5. Other hearing loss	32,580,000
6. Migraine	28,898,000
7. Diabetes	29,518,000
8. Chronic obstructive pulmonary disease	26,131,000
9. Anxiety disorders	24,356,000
10. Other musculoskeletal disorders	22,644,000
11. Schizophrenia	15,204,000
12. Falls	12,818,000
13. Osteoarthritis	12,811,000
14. Refraction and accommodation errors (of the eye)	11,257,000
15. Asthma	10,596,000
16. Dysthymia	9,849,000
17. Bipolar disorder	9,911,000
18. Medication overuse headache	9,846,000
19. Other mental and substance use disorders	9,257,000
20. Dermatitis	9,278,000

Migraine (6th) and medication-overuse headache (18th) together account for 38,744,000 YLDs, putting headache disorders collectively in 3rd place.

The first GBD study was published by the World Health Organization (WHO) in 1990. GBD measures loss of health in populations caused by all important diseases in the world. It measures disability in “years lived with disability” (YLDs). Somebody living for a year wholly disabled loses one YLD; ten people living for a year one-tenth disabled also, between them, lose one YLD. The average migraine attack is considered to be 43% disabling while it lasts – commonly a day. By adding the YLDs of all the people in populations, studies can compare quite different diseases. They can order them according to how much disability they cause in the world. The results may be surprising.

In the 23 years of GBD, headache has come from nowhere – ignored in GBD1990 – into the leading three of the several hundred contributors to the global burden of disease that GBD counts. Behind this extraordinary transition is huge, sustained, coordinated effort.

GBD itself is a massive, ongoing enterprise. Undertaken again by WHO in 2000, it is since led by the Institute of Health Metrics and Evaluation, University of Washington. It sets out “a comprehensive picture of what disables and kills people across countries ... so that health systems can be improved.” The information used in GBD2013 came from more than 1,000 researchers in over 100 countries, and applied to 188 countries and over 300 diseases. Our aim in this was to include information about migraine, tension-type headache (TTH) and MOH from as many countries as possible, so that headache would be fairly represented.

The Global Campaign against Headache was launched in 2003, with a purpose: to reduce the burden of headache worldwide. Twelve years ago, it was not clear what this burden was, in scope or scale. Soon after, data collection began for GBD2010 (which was initially to be GBD2005). Filling the largest knowledge gaps was therefore the first priority of Lifting The Burden (LTB) in conducting the Global Campaign. It became something of a race against time, firstly to develop and test the methods for studies of populations, going from door-to-door, and then to apply them in the big countries: China, India and Russia, home to 2.5 billion people. These things were done. Later, LTB supported studies in Nepal in South-East Asia, Saudi Arabia and Pakistan in Eastern Mediterranean, and Zambia and Ethiopia in Africa – filling huge knowledge gaps – all while collaborating with GBD. As a result, GBD2013 had much better information than GBD2010.

Why is GBD2013 so important for people with headache? These findings should bring much-needed awareness of headache disorders, so that they receive better health care. It is tempting, therefore, to claim these findings as a triumphal conclusion of prolonged hard effort. That would, however, overlook their tragic meaning. GBD measures disease burden as it is – lessened by whatever treatments are made available. Headache disorders are largely treatable. Why are they among the top three causes of disability?

TJ Steiner, GL Birbeck, RH Jensen, Z Katsarava, LJ Stovner and P Martelletti
*Directors and Trustees of Lifting The Burden**

**Lifting The Burden is a UK-registered charity conducting the Global Campaign against Headache in official relations with the World Health Organization.*

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