

A funding headache

In September, 2007, the first “Headache on the Hill” initiative took place in Washington DC, USA, with the aim of securing an increase in NIH funding for one of the most neglected areas of neurological research: headache. All areas of neurological research would benefit from greater investment, yet funding for headache, the most common neurological disorder, is by far the lowest relative to its substantial prevalence and burden. Headache on the Hill—which is supported by a host of organisations including the American Academy of Neurology, WHO, and the European Brain Council—involved nearly 50 neurologists who visited Congress in an attempt to persuade lawmakers to close this funding gap.

More than 95% of people experience a headache during their lifetimes, and a total of 46% of adults across the globe have an active headache disorder. The global prevalence of migraine is 11%, tension-type headache 42%, and chronic daily headache 3%. The economic burden of headache disorders from lost working days and reduced effectiveness at work is estimated at US\$20 billion, accounting for 9% of lost productivity in the USA. In Europe, this figure is estimated at €27 billion per year for migraine. This cost is thought to be matched by other forms of headache, and is similar to that incurred through direct medical care and lost productivity for dementia and greater than that for other major neurological disorders such as stroke, epilepsy, multiple sclerosis, and movement disorders.

At present, annual funding from the NIH for migraine research in the USA is estimated at about US\$13 million—less than 0.05% of the annual NIH budget. Migraine research in the USA receives less than a seventh of the funding of epilepsy research, despite migraine being 12 times more prevalent and leading to 85% more years lost through disability than epilepsy. The situation is similarly poor in Europe: in 2004, funding amounted to €315 million, a mere €7 million of which came from public sources, with the remainder being spent by the pharmaceutical industry. Relative to the costs to society, migraine research received by far the lowest amount of public funding of all the major brain disorders at a meagre 0.025%. The relative lack of investment is reflected in the low number of research centres and investigators devoted to headache research, even though headache dominates the clinical case loads

of more than half of US neurologists. Moreover, the NIH has never funded an intramural headache (or even pain) research institute, centre, or study section, and on both sides of the Atlantic, there has been no specific funding for headache besides migraine.

So, why is there such a dire lack of funding for headache research? One reason is that the prevalence and scale of the burden of headache are not appreciated. Underlying this is the problem that migraine and other types of headache are viewed by many as trivial illnesses or even psychological problems, and those with headache disorders do not always admit that they are experiencing attacks for fear of this stigma. In the medical community, a lack of funding translates to infrequent reports of high-quality research, and in turn, a lack of awareness or interest in this area. A crucial step is therefore to raise awareness and engender a change in perceptions in society, medicine, and public funding bodies about the seriousness of headache and the potential to improve patient care with more investment in research.

More publicly funded research centres and investigators dedicated to headache could promote the development of new ways to tackle this disorder without reliance on the pharmaceutical industry. A similar NIH funding drive for epilepsy led to accelerated screening of new compounds and more clinical trials, resulting in a greater number of therapeutic options for patients. To achieve this for headache, there first needs to be a better understanding of the molecular mechanisms, which might enable the identification of new therapeutic targets. Strategies to predict and prevent migraine and greater insights into the mechanisms of progression and remission, including risk factors such as genetics, medication overuse, and comorbidities, are also important areas of research that could be translated into essential improvements in patient care.

There is an urgent need for increased and sustained public funding in headache research. The Headache on the Hill initiative is a commendable effort in helping to raise awareness among politicians about the importance of headache research and the need for greater NIH funding for this field. NIH should lead the way in making headache a research priority, setting an example that could prompt a boost in investment from other public organisations around the world. ■ *The Lancet Neurology*

For more information on the global burden of headache see *Cephalalgia* 2007; 27: 193–210

For more information on NIH funding of headache research see *Cephalalgia* 2007; 27: 991–94

For more information on the funding of headache research in Europe see *Cephalalgia* 2007; 27: 995–99