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**Title: Providing care: Cost-effective and affordable**

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**Introduction and objectives**: Headache disorders are real illnesses, often causing lifelong disabilities. Migraine, tension-type headache (TTH) and medication-overuse headache (MOH) are of major public-health importance: collectively, they are the 2nd highest cause of disability in populations throughout the world, leading to much lost productivity and very high indirect costs (>€100 billion per year in EU). The Value of Treatment (VoT) Project is a timely and ground-breaking initiative of the European Brain Council (EBC) in collaboration with the LSE, *Lifting The Burden* (LTB), European Headache Federation and other partner institutions. It argues that optimizing interventions in brain disorders can bring not only positive outcomes for patients but also economic gains for society. As part of the VoT project, the headache economic case study estimated cost/effectiveness of implementing structured headache services (SHSs) based in primary care and supported by educational initiatives aimed at both patients and health-care providers.

**Methods**: We modelled cost-effectiveness of SHSs delivering treatments for each of the headache types (migraine, TTH, MOH), with efficacy known from randomized controlled trials. Three health-care systems – of Russia, Spain and Luxemburg – brought different experiences of health service delivery and financing into the model. We made annual (short-term) and 5-year cost estimates from health-care provider and societal perspectives (2017 figures, euros). We expressed effectiveness as healthy life years (HLYs) gained, and cost-effectiveness as incremental cost-effectiveness ratios (ICERs) (cost to be invested/HLY gained).

**Results**: In short-term modelling from the health-care provider perspective, the intervention is cost effective overall and across headache types – well below WHO framework thresholds. Over 5 years, the intervention is even more cost effective. Results are consistent across health-care systems. From the societal perspective, the intervention is not only cost-effective but also cost-saving over 1 year and 5 years, for all types of headache and across health-care systems. The greater the country’s wage levels, the greater are the economic savings for society (Luxemburg > Spain > Russia).

**Discussion**: For the first time, the effectiveness and cost effectiveness of introducing hypothetical SHSs in Europe was evaluated across health-care systems. Our results study showed that such services, based in primary care and supported by patient and provider education, are effective and cost-effective solutions to headache disorders and the disability they cause. From the health-care provider perspective, cost-effectiveness is least (ICERs greatest) for TTH because of its much lower disability weight compared with those for migraine and MOH. In practice, structured headache services will not discriminate: they must manage all headache types; however, people with TTH are least likely to require them.

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