The global epidemic of low back pain

The global epidemic of low back pain is escalating. A staggering 619 million people worldwide suffered from low back pain in 2020 (nearly 10% of the world's population), and by 2050, that number is expected to reach 843 million. With a paucity of proven effective treatments, continued reliance on low-value health care, and disproportionate impact on disadvantaged and culturally diverse populations, what is needed to turn the tide on low back pain?

The latest figures on low back pain prevalence, which come from the Global Burden of Disease (GBD) 2021 study, show that the most dramatic growth in prevalence will be in Asia and Africa, where social support systems and health-care systems are often under-resourced and overburdened. And as with many chronic conditions, the burden falls most heavily on socioeconomically disadvantaged populations.

What's more, these new numbers are likely to be underestimated, given that the GBD 2021 data do not account for the impact of COVID-19. Indeed, both the prevalence and intensity of low back pain increased during the pandemic, according to a recent meta-analysis of 163 studies, due in part to increased inactivity resulting from lockdowns and physical distancing measures, as well as the worsened ergonomics of working from home. And limited access to health care meant worsening pain for many with existing lower back pain.

The societal and economic burden of low back pain is substantial—in the UK, low back pain costs the National Health Service nearly £5 billion annually from general practitioner appointments alone. In the USA, the price tag for low back and neck pain was US$134 billion in 2016. Low back pain—the prevalence of which is highest in working-age people—also increases absenteeism, decreases productivity, and contributes to early retirement. In Brazil, for example, low back pain accounted for 100 days absent from work per person per year between 2012 and 2016, with productivity losses accounting for nearly 80% of the country's annual cost of low back pain (US$2.2 billion). There are also reciprocal effects on mental health—chronic low back pain is associated with increased depression, and depression is linked to increased disability and worse recovery in individuals with low back pain.

Despite being the leading cause of disability worldwide, low back pain and other musculoskeletal conditions have not featured prominently on the global health agenda. There is no specific mention of these conditions in the WHO non-communicable diseases (NCD) agenda nor the NCD 2030 Countdown, and the US National Institute of Health (NIH) has slashed its funding budget for back pain by more than half, from US$170 in 2019 to US$69 million in 2023. In stark contrast, the 2023 NIH budget for arthritis, which is increasing in prevalence but decreasing as a cause of disability and mortality, is US$323 million. Low back pain—and musculoskeletal conditions more broadly—need to be prioritised at the global level, with governments, health-care systems, and policy makers working collaboratively to implement solutions.

Solutions should involve integration of strategies to mitigate low back pain in the workplace, along with access to rehabilitation services, which will help to minimise absenteeism. To this end, in 2017, WHO launched the Rehabilitation 2030 initiative, which aims to strengthen rehabilitation services worldwide, noting that this is a fundamental but underresourced element of disease management that remains unattainable for many patients. Specific training of health-care practitioners in the treatment of patients with low back pain could also be a positive step forward. In the UK, the introduction of first contact practioners—advanced practitioners who specialise in musculoskeletal conditions—has resulted in fewer referrals to secondary care, fewer requests for imaging, and improved conversion rates to surgery.

A major challenge in minimising the burden of low back pain will be to facilitate identification of and access to effective non-pharmacological interventions in order to move away from harmful low-value health-care options, such as opioids. The NIH's Back Pain Consortium Research programme was launched in 2019 to address the health-care gap in low back pain, as part of a broader initiative to address the opioid epidemic in the USA. The programme aims to improve the phenotyping and diagnosis of low back pain and promote research into new treatments.

Although progress has been made, turning the tide on low back pain in a meaningful way will require establishing and amplifying it as a priority on the global health agenda. The time to do so is now.

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For the **2021 Global Burden of Disease study** see **Articles** page e316

For the **meta-analysis on the impact of the pandemic on low back pain** see *J Environ Res Public Health* 2022; **19:** 4599

For the study on **US health care spending** see *JAMA* 2020; **323:** 863–84

For the **study on the impact of low back pain in Brazil** see *PLoS One* 2020; **15:** e0230902

For more on the **association between depression and low back pain outcomes** see *J Gen Intern Med 2022;* **37:** 1233–46

For more on **NIH spending** see https://report.nih.gov/funding/categorical-spending#/

For more on the **Rehabilitation 2030 Initiative** see https://www.who.int/initiatives/rehabilitation-2030

For more information on the **first contact practitioner initiative** see *Musculoskelet Sci Pract* 2020; **50:** 102267

For information on the **Back Pain Consortium (BACPAC)** see *Pain Med* 2023; published online Jan 9. https://doi.org/10.1093/pm/pnac202