

## Advocacy toolkit Physiotherapy and low back pain



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## Low back pain a global epidemic



#### The global picture

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.<sup>1</sup>

Low back pain (LBP) is the leading health condition contributing to the need for rehabilitation services in 134 of 204 countries analysed.<sup>2</sup>

Among musculoskeletal disorders, LBP caused the highest burden, with 568 million people (505-640) and 64 million (45-85) years lived with disability (YLDs) globally.<sup>2</sup>

In adults, LBP is the main reason for a premature exit out of the workforce. Projections show that the number of people with LBP will increase in the future, and even more rapidly in low-income and middle-income countries (LMICs).<sup>2</sup>

Rehabilitation is needed by 2·41 billion people who have a wide variety of health conditions. The highest contribution to the need for rehabilitation comes from musculoskeletal disorders, with LBP being the main contributor to the overall burden. The only possible way to scale up rehabilitation to reach all those in need is through its integration into the health system and, specifically, for rehabilitation services to be strengthened at the primary care level. Rehabilitation specialists (eg, physiotherapists, occupational therapists) should be included in the primary care workforce.<sup>2</sup>

The Lancet series on LBP emphasized that the overall LBP-related disability is rising globally, and that these increases are most pronounced in the LMICs. The reasons for increasing disability include the rapid increase in population aging in LMICs, concomitant increase in coexisting noncommunicable diseases, and increasing use of expensive and potentially harmful procedures for LBP that might lead to pain and disability (eg, surgeries causing chronic postsurgical pain).<sup>3, 4, 5</sup>

Further, LBP disability is known to be associated with lower socioeconomic positioning, psychological distress, and physically demanding occupations, all increasing an individual's risk of LBP disability in LMICs.<sup>4</sup>

In 2020, LBP accounted for 8.1% of all-cause years lived with disability globally.<sup>6</sup>

Despite being the leading cause of disability worldwide, LBP and other musculoskeletal conditions have not featured prominently on the global health agenda. LBP—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.<sup>1</sup>

## Low back pain a global epidemic

#### Proven effective treatments

World Health Organization (WHO) recommends a patient-centred biopsychosocial approach to offer individualised care<sup>7</sup>. It recommends the following non-surgical interventions<sup>6</sup> to help people experiencing chronic LBP, including:

- education programmes that support knowledge and self-care strategies
- exercise programmes
- physiotherapy interventions, such as manual therapy
- psychological therapies, such as cognitive behavioural therapy
- medicines, such as non-steroidal anti-inflammatory medicines

In collaboration with other health professionals, physiotherapists are the rehabilitation specialists that are ideally placed to provide these treatments.<sup>6</sup>

#### The societal and economic burden

Chronic LBP is a major cause of work loss and participation restriction and reduced quality of life around the world. Considering the high prevalence, LBP contributes to a huge economic burden on societies. It should be considered a global public health problem that requires an appropriate response.<sup>7</sup>

#### Australia

In a study conducted to compare the effectiveness and economic efficiency of physiotherapists offering cognitive functional therapy (CFT) for chronic disabling LBP, an average of AU\$5,000 per year was saved for every patient with LBP treated (mostly by getting people back to work).<sup>8, 9, 10</sup>

#### Brazil

LBP 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 LBP (US\$2.2 billion). There are also reciprocal effects on mental health—chronic LBP is associated with increased depression, and depression is linked to increased disability and worse recovery in individuals with LBP.<sup>1</sup>

## Low back pain a global epidemic

#### **United Kingdom**

LBP costs the National Health Service nearly £5 billion annually from general practitioner appointments alone.<sup>1</sup>

The Keele University stratified care approach to LBP, STarT Back,<sup>11</sup> is a tool designed to improve care for patients with LBP, and ensure patients recieve appropriate treatment by a skilled physiotherapist. Its positive impact and return on investment has been reported, generating more than £226 for every £1 spent to implement it.<sup>12, 13</sup>

#### **United States**

The price tag for low back and neck pain was US\$134 billion in 2016.

Back pain is a leading musculoskeletal disorder in the US, with a high occurrence, costly treatment, and significant effect on a person's quality of life. It is the leading cause of missed work days and work limitations. Physiotherapy is a cost-effective approach to improve strength and reduce pain for patients with acute LBP. Choosing physiotherapy early to treat acute LBP, over usual care, results in an average net benefit of \$4,160, including all hidden costs of a patient's time, pain, and missed life events; and the dollars paid for the services.<sup>14,15</sup>

#### Impact of LBP on the global workforce

The prevalence of LBP is highest in working-age people, increasing absenteeism, decreasing productivity, and contributing to early retirement.<sup>1</sup>

Disability associated with LBP increased in all age groups between 1990 and 2019 and was greatest in the 50-54 age group in 2019. Approximately 70% of years lost through disability were in working aged people (20-65 years).<sup>16</sup>

Studies in European countries indicate the total costs associated with LBP varies between 0.1-2% of gross domestic product. The costs associated with loss of productivity due to LBP in LMICs are likely to be substantial given the overall prevalence of chronic LBP in LMICs, which is estimated to be around 52% in workers.<sup>16</sup>

Over 80% of the total costs attributable to LBP are due to indirect costs such as loss of productivity and disability payments in countries that have functioning social welfare systems.<sup>16</sup>

#### WHO Rehabilitation 2030

In 2017, WHO launched the Rehabilitation 2030 initiative, which aims to strengthen rehabilitation services worldwide, noting that this is a fundamental but under resourced element of disease management that remains unattainable for many patients. A major challenge in minimising the burden of LBP is 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.<sup>1,7,17</sup>

### Treatments not recommended

#### The following treatments are now NOT recommended for low back pain: <sup>6, 18, 19</sup>

- traction
- therapeutic ultrasound
- transcutaneous electrical nerve stimulation (TENS)
- orthotics
- assistive products: lumbar braces, belts and/or supports and mobility assistive products
- mindfulness-based stress reduction therapy
- opioid analgesics
- antidepressants
- skeletal muscle relaxants
- glucocorticoids
- benzodiazepines
- injectable local anaesthetics
- weight management
- paracetamol
- spinal injections
- spinal fusion
- disc replacement

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