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# GLOBAL AND REGIONAL ESTIMATES OF CLINICAL AND ECONOMIC BURDEN OF LOW-BACK PAIN IN HIGH-INCOME COUNTRIES: A SYSTEMATIC REVIEW AND META-ANALYSIS

*F. Fatoye<sup>1</sup>, T. Gebrye<sup>1</sup>, C. Ryan<sup>2</sup>, C. Mbada<sup>1</sup>*

<sup>1</sup>Manchester Metropolitan University, Health Professions, Manchester, United Kingdom, <sup>2</sup>Teesside University, School of Health and Life Sciences, Middlesbrough, United Kingdom

**Preferred Presentation format:** Platform presentation

**Printed or ePoster presentation:** Printed poster presentation

**Primary topic:** Rheumatology

**2nd Topic:** Musculoskeletal

**Background:** Low-back pain (LBP) is a common health problem, and the leading cause of activity limitation and work absence in people of all ages and socioeconomic status.

**Purpose:** This study aimed to analyse the clinical and economic burden of LBP in high income countries via systematic review and meta-analysis.

**Methods:** The systematic review was carried out using the PubMed, Medline, CINAHL, PsycINFO, AMED, Embase and Scopus databases with studies published from inception to December 10<sup>th</sup>, 2021. We also searched prescribing information, relevant web sites, reference lists and citation sections of recovered articles. Two reviewers independently assessed studies for inclusion and extracted data manually. Differences were resolved by consensus. Meta-analyses were conducted for clinical and economic outcomes.

**Results:** Literature search identified 3571 potentially relevant articles and 19 studies met the inclusion criteria and were therefore reviewed. The included studies were from region of America (n = 5); European region (n = 12) and the Western Pacific region (n = 2). The average annual direct and indirect costs estimate per population for LBP ranged from € 2.3 billion to € 2.6 billion; and € 0.24 billion to \$8.15 billion, respectively. In the random effects meta-analysis, the pooled rates of hospitalisation for LBP was 3.2% (95% confidence interval 0.6% - 5.7%). The pooled direct costs and total costs of LBP per patients were USD 9231 (95% confidence interval -7126.71 - 25588.9) and USD 10143.1 (95% confidence interval 6083.59 - 14202.6), respectively.

**Conclusion(s):** Low-back pain led to high clinical and economic burden in high income countries that varied significantly across the geographical contexts.

**Implications:** Knowledge of the clinical and economic impact of LBP in high income countries may be useful to influence programmes and behaviour in healthcare systems, through guiding policy makers and funding agencies to improve health outcomes of individual with this condition.

**Keyword 1:** Low back pain

**Keyword 2:** Economic burden

**Keyword 3:** High income countries

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**Did this work require ethics approval?:** No

**Institution:** Manchester Metropolitan University

**Ethics committee:** N/A

**Please state the reasons why ethics approval was not required and upload any supporting evidence:** The study is a systematic review. For this study ethical approval was not required.

**Has any of this material been/due to be published or presented at another national or international conference prior to the World**

**Physiotherapy Congress 2023?:** No

**Consent:** Yes

**Consent:** Yes