

# THE ECONOMIC BURDEN OF MUSCULOSKELETAL DISORDERS RESULTING FROM ROAD TRAFFIC ACCIDENT IN LOW AND MIDDLE INCOME COUNTRIES: A SYSTEMATIC REVIEW

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**OBJECTIVES:** Approximately 20 – 50 million people sustain nonfatal injuries as a result of road traffic accidents (RTA). Treatment costs as well as lost wages associated with this nonfatal injury are substantial. The study reviewed the economic burden of musculoskeletal (MSK) disorders caused from RTA in low and middle-income countries (LMICs).

**METHODS:** We performed a systematic search of MEDLINE, CINAHL, Cochrane Database of Systematic Reviews (CDSR), Health Economic Evaluations Database (HEED), and Web of Science Database from inception to September 2019. Studies that assessed the economic burden of MSK resulting from RTA in LMICs published in English language were included. The quality of the included studies was assessed using the Drummond and Jefferson criteria. A descriptive data synthesis was used to present the results.

**RESULTS:** The search identified 456 studies, and nine of them met the inclusion criteria and were included in this review. The studies were conducted in Iran (n = 3), Nigeria (n = 2), Vietnam (n = 1), India (n = 1), Thailand (n = 1), and Nepal (n = 1). The quality score of the included studies were  $\geq 50\%$ . The mean age of the patients in the included studies ranged between 24.6 to 40.3 years. Mean direct and indirect costs in the included studies ranged from \$11.04 to \$2494 and \$33.3 to \$189.2, respectively over 12 months. Hospitalisation and treatment were identified as the major cost drivers.

**CONCLUSIONS:** The findings of the review showed that the costs of injuries resulting from RTA were considerably high relative to health expenditures levels. Hence, it is important that prevention strategies be in place to reduce the economic burden of MSK disorders caused by RTA in LMICs.