

## Prevalence and Risk Factors of Low Back Disorder among Waste Collection Workers: A Systematic Review

**Authors :** Benedicta Asante, Catherine Trask, Brenna Bath

**Abstract :** Background: Waste Collection Workers' (WCWs) activities contribute greatly to the recycling sector and are an important component of the waste management industry. As the recycling sector evolves, there is the increase in reports of injuries, particularly for common and debilitating musculoskeletal disorders such as low back disorder (LBD). WCWs are likely exposed to diverse work-related hazards that could contribute to LBD. However, there is currently no summary of the state of knowledge on the prevalence and risk factors of LBD within this workforce. Method: A comprehensive search was conducted in Ovid Medline, EMBASE, and Global Health e-publications with search term categories 'low back disorder' and 'waste collection workers'. Two reviewers screened articles at title, abstract, and full-text stages. Data were extracted on study design, sampling strategy, socio-demographics, geographical region, and exposure definition, the definition of LBD, response rate, statistical techniques, LBD prevalence and risk factors. The risk of bias was assessed with a standardized tool. Results: The search of three databases generated 79 studies. Thirty-two studies met the study inclusion criteria for both title and abstract; only thirteen full-text articles met the study criteria and underwent data extraction. The majority of articles reported a 12-month prevalence of LBD between 16-74%. Although none of the included studies quantified relationships between risk factors and LBD, the suggested risk factors for LBD among WCWs included: awkward posture; lifting; pulling; pushing; repetitive motions; work duration; and physical loads. Conclusion: LBD is a major occupational health issue among WCWs. In light of these risks and future growth in this industry, further research should focus on the investigation of risk factors, with more focus on ergonomic exposure assessment, and LBD prevention efforts.

**Keywords :** low back pain, scavenger, waste pickers, waste collection workers

**Conference Title :** ICPMIM 2016 : International Conference on Preventive Medicine and Integrative Medicine

**Conference Location :** Chicago, United States

**Conference Dates :** September 19-20, 2016