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## Injury Prevention Interventions for Street hawkers in Low- and Middle-income Countries: A Scoping Review Protocol

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### ADMINISTRATIVE INFORMATION

**Support** - Fogarty International Center.

**Review Stage at time of this submission** - The review has not yet started.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202610044

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 January 2026 and was last updated on 13 January 2026.

### INTRODUCTION

**R**eview question / Objective What types of injury prevention interventions have been implemented among street hawkers in low- and middle-income countries, and what are their reported characteristics, delivery strategies, and outcomes?

The objective of this scoping review is to identify available interventions implemented to reduce injuries or improve safety among street hawkers in low- and middle-income countries.

**Background** Street hawkers play a crucial role in a country's economy by providing essential goods and services, particularly in low- and middle-income countries (Okoye, 2020; Adween, 2011). In many developing countries, street hawking constitutes a significant component of the informal sector, providing livelihoods for large segments of the population (Okoye, 2020; Adween, 2011). Despite their economic importance, street hawkers face multiple hazards, including physical injuries

from traffic accidents, exposure to extreme weather and occupational violence (Amoako-Kwakye and Antwi Welbeck, 2017; Sam et al., 2018; Hoque, 2023; Amrutha and Cholakkal, 2021). Over the years, road safety interventions have been intensified to improve road and vehicular transport. Decongestion exercises and relocation of street hawkers to other places have not yielded results (Damsere-Dery et al., 2010; Amoako et al., 2014; Akaateba et al., 2015; Obeng-Atuah et al., 2017; Ojo et al., 2019; Adween, 2011). Evidence on injury prevention interventions is sparse, scattered, and lacks standardization across low- and middle-income countries, making it difficult to identify effective strategies. (Sam et al., 2018). A scoping review is appropriate for identifying available and successful interventions implemented in Africa or Asia that can help guide the development of an intervention package to reduce injuries among street hawkers and enhance their safety. A scoping review is appropriate due to the expected heterogeneity of study types, settings, and intervention types and modalities. This review

focuses on Africa to provide contextually relevant evidence for developing a safety intervention in Kumasi, Ghana. By systematically mapping existing interventions, the review aims to identify effective strategies, highlight research gaps, and inform policy and program design to improve street hawker safety.

**Rationale** Street hawking is a common informal economic activity in many low- and middle-income countries, providing livelihoods for numerous people. However, hawkers face several hazards, including physical injuries, traffic accidents, and exposure to harsh weather conditions. Despite various road safety interventions, these risks persist, and limited research exists on effective prevention strategies. This study seeks to identify and map interventions that can reduce injuries and improve the safety of street hawkers.

## METHODS

**Strategy of data synthesis** A scoping review of peer-reviewed literature on injury prevention interventions for street hawkers, including both published and unpublished studies, will be conducted. The following databases will be used: PubMed/ Medline, Science Direct, Scopus, Web of Science, Embase, and African Journals Online, African Index Medicus. Grey literature will also be used.

A two-step search strategy will be employed. First, the text words (key words) contained in the titles and abstracts, along with index terms describing these articles, will be used to develop a full search strategy for all included databases. The search strategy, including all identified keywords and index terms, will be adapted to search for literature in each included database and/or information source. Reference lists of all included sources of evidence will be screened for additional studies. Exact search strings and Boolean operators will be provided in a supplementary appendix.

**Eligibility criteria** This review will include studies on street hawkers of all ages, with child hawkers analyzed separately when data are available. Eligible studies will evaluate interventions to prevent injuries, including safety training, policies, educational campaigns, and infrastructure improvements. The review will focus primarily on Africa, while relevant evidence from other low- and middle-income countries, including Asia, will also be considered. Studies published in English from database inception to 2025 will be included. Both experimental and quasi-experimental studies, analytical and descriptive observational studies, qualitative research, and relevant systematic

reviews will be considered to comprehensively map existing interventions and evidence gaps.

**Population**

Street hawkers

**Concept**

Studies that evaluate interventions aimed at preventing injuries among street hawkers. E.g., Safety training programs, injury prevention interventions, laws/ policies, educational campaigns, infrastructure

**Context**

This review will focus primarily on studies from Africa to provide in-depth evidence for developing an intervention in Kumasi, Ghana. Relevant studies from other low- and middle-income countries, including Asia, will also be considered. Only articles published in English from database inception to 2025 will be included.

### Source of evidence screening and selection

The selection and inclusion of studies will follow Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). All records identified from database searches will be imported into reference management software, and duplicates will be removed. Titles and abstracts will be screened independently by two reviewers according to the predefined inclusion and exclusion criteria. Full-text articles of potentially relevant studies will be retrieved and assessed for eligibility. Disagreements will be resolved through discussion or by a third reviewer. The overall process of study selection will be documented and presented in a PRISMA-ScR flow diagram.

**Data management** All records identified from database searches will be imported into reference management software, where duplicates will be automatically detected and removed. Screening and selection of studies will be guided by the PRISMA-ScR framework to ensure transparency and reproducibility. A standardized data extraction form will be developed to capture key study details, including author(s), publication year, country, study design, population, intervention type, outcomes, and main findings.

Data extraction will be performed independently by two reviewers, and discrepancies will be resolved through discussion or consultation with a third reviewer. Extracted data will be organized and managed using Microsoft Excel, where they will be systematically coded, categorized, and prepared for descriptive and thematic analysis in alignment with the review objectives.

### Reporting results / Analysis of the evidence

Relevant data will be extracted from each included

study using a standardized data extraction form developed for this review. The form will capture information such as author(s), year of publication, country, study design, population characteristics, type of intervention, outcomes assessed, and key findings. Data extraction will be performed independently by two reviewers to ensure accuracy and consistency. Any discrepancies identified during the process will be discussed and resolved through consensus or by a third reviewer. Extracted information will be organized into an Excel sheet and structured according to the review objectives.

**Presentation of the results** The results were presented both descriptively and thematically in alignment with the review objectives. Descriptive summaries will outline study characteristics such as author, year, country, design, population, and type of intervention. Thematic narratives will highlight key patterns and categories, including types of injury prevention interventions, outcomes, barriers, and facilitators identified across studies. Findings will be displayed in tables, charts, and figures to provide a clear visual overview. A PRISMA-ScR flow diagram illustrating the study selection process will be presented to provide a clear overview of the evidence and identify gaps for future research.

**Language restriction** Yes, a language limit will be imposed. Only studies published in English will be included in the search due to feasibility and translation constraints.

**Country(ies) involved** Ghana - Kwame Nkrumah University of Science and Technology.

**Other relevant information** The review will focus on studies conducted in African countries, particularly those from low- and middle-income regions, with a specific interest in Ghana.

**Keywords** Street hawkers; Injury prevention; Occupational safety; Informal sector; Road safety; Low- and middle-income countries; Public health.

**Dissemination plans** Through my institutional research platforms, presentations at relevant workshops/meetings and conferences, professional platforms and social media handles.

#### **Contributions of each author**

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