ABSTRACT

Background: The roll out of COVID-19 vaccination program has been a critical public health intervention to control the pandemic in the countries. Understanding the implementation outcomes of these vaccination programs is essential for optimizing future public health strategies.

Objectives: This scoping review aimed to assess the feasibility and effectiveness of strategies in implementing COVID-19 vaccination programs using the RE-AIM framework.

Method: A comprehensive search was conducted in PubMed, Scopus, and Cochrane Library. For completeness, we expanded the search strategies to RE-AIM dimensions, which are reach, effectiveness, adoption, implementation, and maintenance as implementation outcomes from strategies of COVID-19 vaccination campaigns. Data extraction focused on target populations, implementation strategy, and its outcomes. The primary reviewer screened and charted the studies independently, with the secondary reviewer reviewing the data charted.

Results: Strategies captured in 50 included studies were categorized into five categories: policy, partnership, program operation, communication, and/or education. A total of 37 studies covered strategy related to program operation, followed by partnership, communication, and the least in policy and education. As many as 36 out of 50 papers (72%) reported one or two of five categories of strategies. Implementation research frameworks are underutilized, with only two studies explicitly using the RE-AIM framework.

Conclusion: To inform future adult vaccination efforts, the review recommends standardizing reporting, integrating healthcare professionals, promoting multidisciplinary approaches, ensuring equitable access, establishing robust monitoring systems, enhancing preparedness, and expanding research to include economic evaluations and theoretical studies.

Keywords: COVID-19 vaccination, implementation research, RE-AIM framework, public health