

Increasing vaccine uptake among employees in the food industry

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Study overview: The COVID-19 pandemic has reaffirmed the importance of vaccination uptake to the functioning of the whole society. To identify what is known about barriers to employee vaccination, motivators for vaccination, and vaccine uptake strategies within critical infrastructure sectors, where employee vaccination is rarely mandated, we conducted a literature review.¹ This document provides a summary of findings relevant to COVID-19 vaccine hesitancy in the food and agriculture sector.

Review approach: We developed a literature search strategy comprised of four concepts: 1) employees within critical infrastructure sectors, 2) vaccination strategies, 3) synonyms for vaccination, and 4) vaccine acceptance and refusal terms. These terms were searched across three databases (PubMed, Web of Science, and PsycINFO). The identified articles were screened for eligibility criteria and synthesized.

Results: Among the 240 identified and screened articles, 22 studies met the eligibility criteria and were reviewed (Figure 1). These studies were conducted in the USA, Italy, Australia, and China and pertained to vaccination for influenza, measles, mumps and rubella (MMR), Q fever, tetanus, COVID-19, and tick-borne encephalitis. The represented critical infrastructure sectors were food and agriculture, education, manufacturing, construction, and financial group workers. Studies representing the food and agriculture industry made up 55% (12) of the 22 studies reviewed.

- We found that barriers to vaccination vary by population and by infectious disease of interest. Employees within the food and agriculture sector experience barriers such as the cost of vaccination, not having time to get vaccinated, and difficulties with accessing vaccines.
- Employees are motivated to get vaccinated by factors such as the desire to protect themselves and their families and recommendations received from physicians or other health professionals. Making vaccination easy and convenient for employees also increases vaccination uptake.
- Only one identified study was on COVID-19; however, 14 reviewed studies on influenza, another airborne infection, are relevant. Strategies that effectively increased vaccination uptake for influenza addressed convenience and confidence barriers by providing free worksite vaccination and employee education.

Recommendations for the food industry:



Implement disease-specific vaccine uptake strategies, e.g., reminding employees about the importance of boosting for COVID-19



Involve employee families in workplace vaccination programs



Utilize health professionals and respected community members in vaccine programs



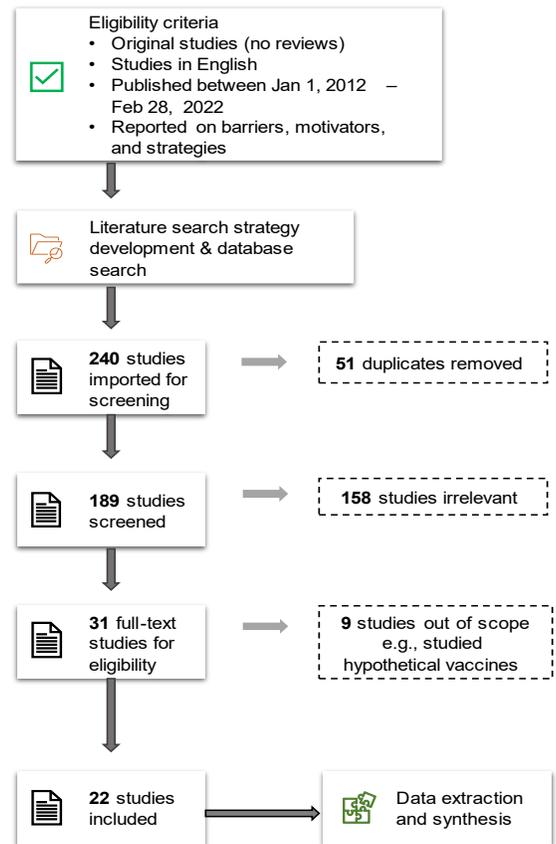
Determine which strategies are most effective through regular program monitoring and evaluation



Implement evidence-based strategies that address the most common barriers to vaccination

Identified knowledge gaps and study limitations: More COVID-19 and sector-specific studies on vaccination uptake strategies are needed. Relevant studies may have been missed in this literature review because of the rapid nature of the review strategy employed and because studies in languages other than English were not considered.

Figure 1: Review flow chart



1. Kalunga L., Bulut E., Chen Z., Li Y., Ivanek R. Increasing vaccine uptake among employees within the non-health related critical infrastructure sectors: A Review. Human Vaccine and Immunotherapeutics. 2022. DOI: <http://dx.doi.org/10.1080/21645515.2022.2135852>