

Food business food safety inspections scoring, rating and disclosure systems— engaging consumers in foodborne disease control: A systematic review and research agenda for LMICs

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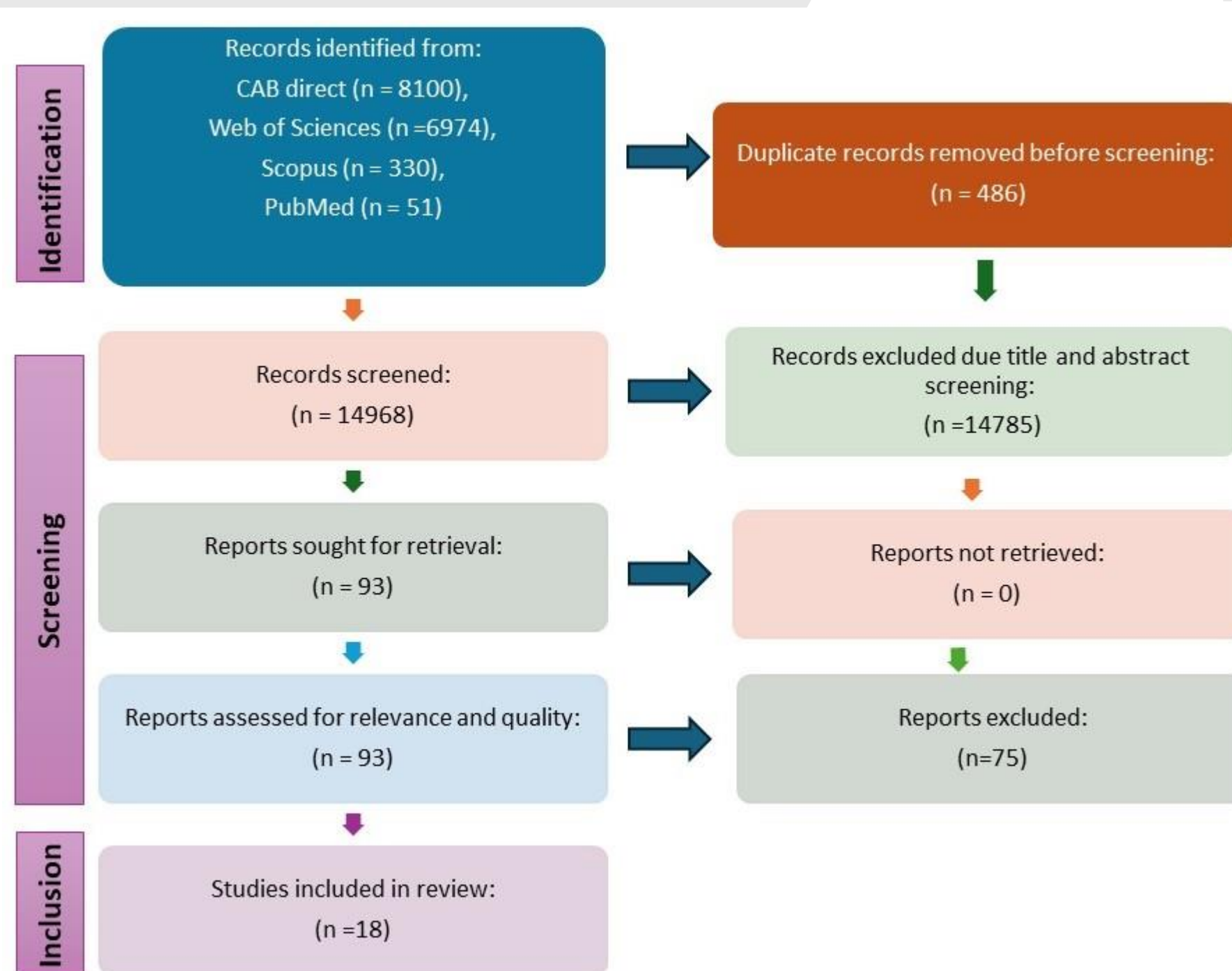
Key messages

- Food inspection is not effective in LMICs and innovative approaches are needed to motivate greater compliance with standards.
- “Scores on doors” could motivate greater compliance through the power of public demand and opinion.
- This systematic literature review found no studies investigating food inspection programs in LMICs.
- While studies from HICs show wide variation of hygiene factors considered; their weight, and scoring; and requirement for disclosure.
- More evidence is needed on optimizing “scores on doors” in HICs and application to LMICs.

Context

- Foodborne diseases impose substantial public health and socio-economic burdens worldwide, with the greatest health burden falling on low- and middle-income countries (LMICs).
- Food inspection has been historically used to evaluate food businesses to ensure food handling practices and the food environment compliance with standards. Sub-standard businesses may be closed or required to improve.
- In high-income countries (HICs), inspection is often combined with scoring, rating and disclosure systems (scores on doors) which inform consumers of food business performance and can thus harness consumer demand to drive up quality.
- “Scores on doors” should be informed by evidence on the choice of items to be scored, and effectiveness of different grading and disclosure approaches.
- However, there is little information on the use and effectiveness of “scores on doors” and even less on their applicability to LMICs.
- This study systematically reviewed studies reporting food business inspections scoring, rating and disclosure to inform an intervention to improve food safety in butcher shops in Addis Ababa, Ethiopia.

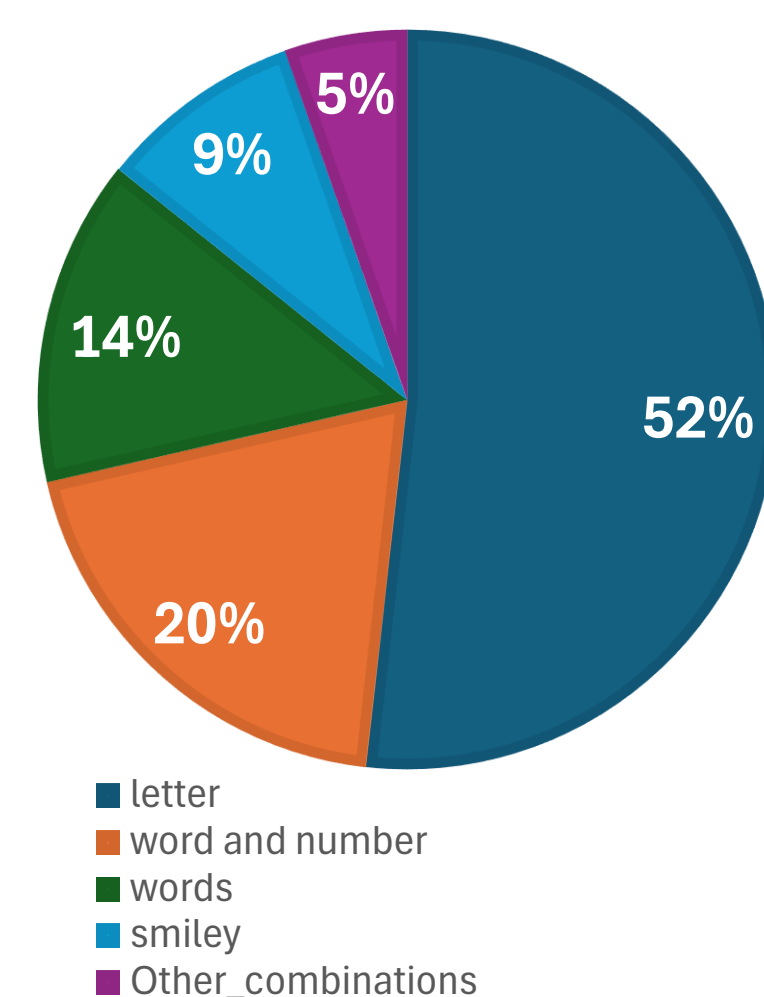
Our approach



PRISMA flow chart for this systematic review

Outcomes

- 15,455 articles were screened, of which 18 are included in this review.
- These were all conducted in upper-middle or high-income countries, with none in LMICs.
- Risk weight values of both high and low foodborne illness risk factors in inspection checklist varied substantially among food authorities, with the variation much higher in high risk factors (mean: 175.4, SD: 290.17, CV: 1.7, Range: 18-1135).



- Among food authorities with grading system report (56 out of 77), letter grades were mostly used followed by combination of words and numbers.

- However, class width of grades varied considerably among food authorities, with C grades showing very high variability (mean: 23, SD: 28, CV: 1.22, Range: 4-79).
- Regarding disclosure, over half of food authorities (48/77, not reported for 29) posted ratings at premises (posting mechanism at premises not reported for 15 out of these 48).
- Of those with food inspection posting information, 35% required posting, for 23% posting was voluntary, and 5 authorities did not post.
- About 60% (45/77, not reported for 32) of authorities disclosed food inspection at their websites with 33% linking with food regulators webpages.
- Among the food authorities with information on the contents of disclosure report (45 out of 77), grades were most commonly employed (84%), followed by summary reports (56%) and datasets (16%).

Conclusion

- Risk weights of foodborne illness risk factors in inspection checklist and class width of food inspection grades varied substantially among food authorities
- This suggests the choice of hygiene factors, grading, and disclosure is not evidence-based and more information is required to optimize systems.
- Inconsistencies in food inspection scoring and grading systems can lead to unclear communication within the food safety environment.



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