Peer-Review Report

Peer Review Report of "Artificial Intelligence in Public Health: Integrated SPAR-4 Systematic Literature Review and Bibliometric Analysis"

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JMIRx Med 2026;7:e103604; doi: 10.2196/103604

Keywords: artificial intelligence; public health; systematic literature review; research themes; bibliometric analysis

This is a peer review report for "Artificial Intelligence in Public Health: Integrated SPAR-4 Systematic Literature Review and Bibliometric Analysis."

Round 1 Review

General Comments

This paper [1] conducts a systematic review of literature at the intersection of artificial intelligence (AI) and public health, addressing a topic of theoretical value and practical relevance, which aligns well with contemporary academic trends in digital health. However, this paper is undermined by weaknesses in conceptual clarity, methodological transparency, and analytical depth.

Specific Comments

Major Comments

1. The Introduction section needs to provide explicit definitions and operational boundaries for the key concepts of "Artificial Intelligence" and "Public Health." A clear specification of the types of AI technologies included and the specific aspects of public health addressed is crucial. Without this, the methodology for the literature review may lack precision, and the applicability of the findings will be difficult to assess.

2. The connection between the analysis of "journals" and "researchers" highlighted in the Introduction section and the paper's specific research questions remains ambiguous. It is suggested that the content expression be re-examined.

3. Justification for the systematic literature review method would be stronger if it were more explicitly grounded in the need to address the specific research questions. For a more streamlined narrative, the authors should consider integrating the theoretical framework into the Introduction.

4. The Methods section requires greater detail to enhance the study's credibility. Specifically, the data extraction process must be disclosed more comprehensively. This includes the rationale for selecting specific bibliographic databases, whether any data cleaning was performed, and if a double-blind protocol was followed during the review to minimize bias. Furthermore, the justification for limiting the Web of Science categories to the current selection needs explanation. Regarding the data analysis, it is crucial to report the specific software/tools used, the justification for their selection, and the detailed parameter settings applied.

5. Move any methodological descriptions or interpretive discussions to their respective sections such as the Methods or Discussion sections instead of the Analysis and Results section, as their current placement in the Results section is inappropriate.

6. The Discussion section requires deeper interpretation. It currently restates thematic clusters from the results without delving into what they reveal about the specific aspects, implications, or evolution of AI technology in public health.

7. The Discussion section should engage more substantively with existing literature to clarify the study's conceptual and practical contributions.

8. The Discussion section does not adequately interpret the implications of key findings presented in the Results section, such as the significant disparities in publication output by country.

9. Found that there are many issues in the references. Please carefully check the full citations to ensure accuracy and consistency.

Minor Comments

10. The Results section must disclose the specific tools used to generate each figure (eg, the software used for Figure 5 and 7).

11. Please report the standard Boolean search query used for the literature retrieval.

12. Some figures appear to be incomplete.

13. I recommend consolidating the output data for authors, institutions, and countries into a single table or figure, rather than presenting them separately.

14. Since the study only includes data from 2021 onward, I suggest that Figure 3 should start from the year 2021.

15. The final stage of the SPAR-4-SLR protocol should be "Assessing."

Round 2 Review

General Comments

Thank you for submitting the revised manuscript. The quality of the paper has improved; however, several issues still need to be addressed.

Specific Comments

Minor Comments

1. The current reference formatting is not compliant and should be thoroughly revised according to the Vancouver style.
2. Some figures lack essential information. For example, Figures 2 and 4 are missing axis titles.
3. It is recommended to delete the Theoretical Framework and Implementation section and integrate the relevant content into the Introduction. This article does not involve an analysis of a theoretical framework, and the listing of existing studies cannot be regarded as a theoretical framework.
4. In Figure 1, the search period is specified as August 2025, which is inconsistent with the search time mentioned in the main text (September 18, 2025). Please ensure consistency.
5. I noticed the following statement in the Methods section: "We used VOSViewer to analyze articles and to construct a co-occurrence network of keywords, titles, and abstracts. This analysis involves creating a keyword co-occurrence network (KCN) to represent a collection of texts." I suggest removing "titles, and abstracts," as Figure 8 only presents a keyword co-occurrence analysis.
6. The total number of publications by year in Table 1 sums to 2118, which is inconsistent with the 2071 articles reported as finally included in the Methods section. Please verify and correct the numbers.
7. Figure 2, Table 1, and Table 3 contain redundant information. It is recommended to retain only Figure 3.

Conflicts of Interest

None declared.

References

1. Dasgupta A, Xue Y, Tao K. Artificial intelligence in public health: Integrated SPAR-4 systematic literature review and bibliometric analysis. JMIRx Med. 2026;7:e85709. [doi: 10.2196/85709]

Edited by Fuqing Wu; This is a non–peer-reviewed article; submitted 04.Jun.2026; accepted 04.Jun.2026; published 16.Nov.2026

Please cite as:
Guo Z
Peer Review Report of "Artificial Intelligence in Public Health: Integrated SPAR-4 Systematic Literature Review and Bibliometric Analysis"
JMIRx Med 2026;7:e103604
URL: https://med.jmirx.org/2026/1/e103604
doi: 10.2196/103604

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