

Thirty Years of the ECHO Model: A Bibliometric Analysis of Its Global Influence on Health Economics and Outcomes Research

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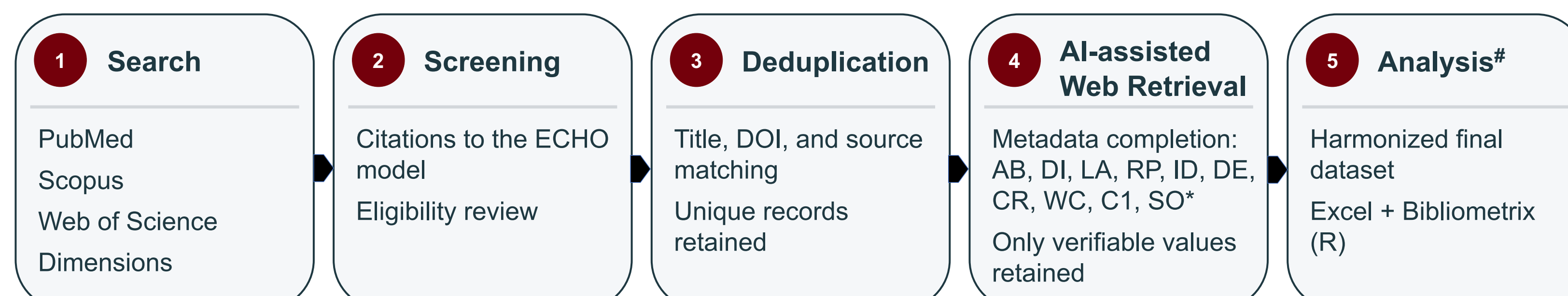
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Background/Objectives

- Introduced in 1993, the Economic, Clinical, and Humanistic Outcomes (ECHO) model provided an early framework for evaluating healthcare value. Although widely cited, its long-term global influence has not been systematically quantified.
- Objective: To characterize publication trends, collaboration patterns, and thematic evolution in research citing the ECHO model.

Methods

- Databases: PubMed, Scopus, Web of Science, Dimensions
- Time period: 1993 – 2025
- Bibliometric analysis using Excel + Bibliometrix (R package)
- AI-assisted metadata enrichment
 - Missing bibliographic fields were supplemented through AI-assisted, web-based metadata retrieval and record linkage, with manual verification before final analysis.
 - Examples include article language, cited references, Web of Science categories, author keywords, corresponding author information.
- Extracted:
 - Authors, journals, countries
 - Citations, keywords, collaboration

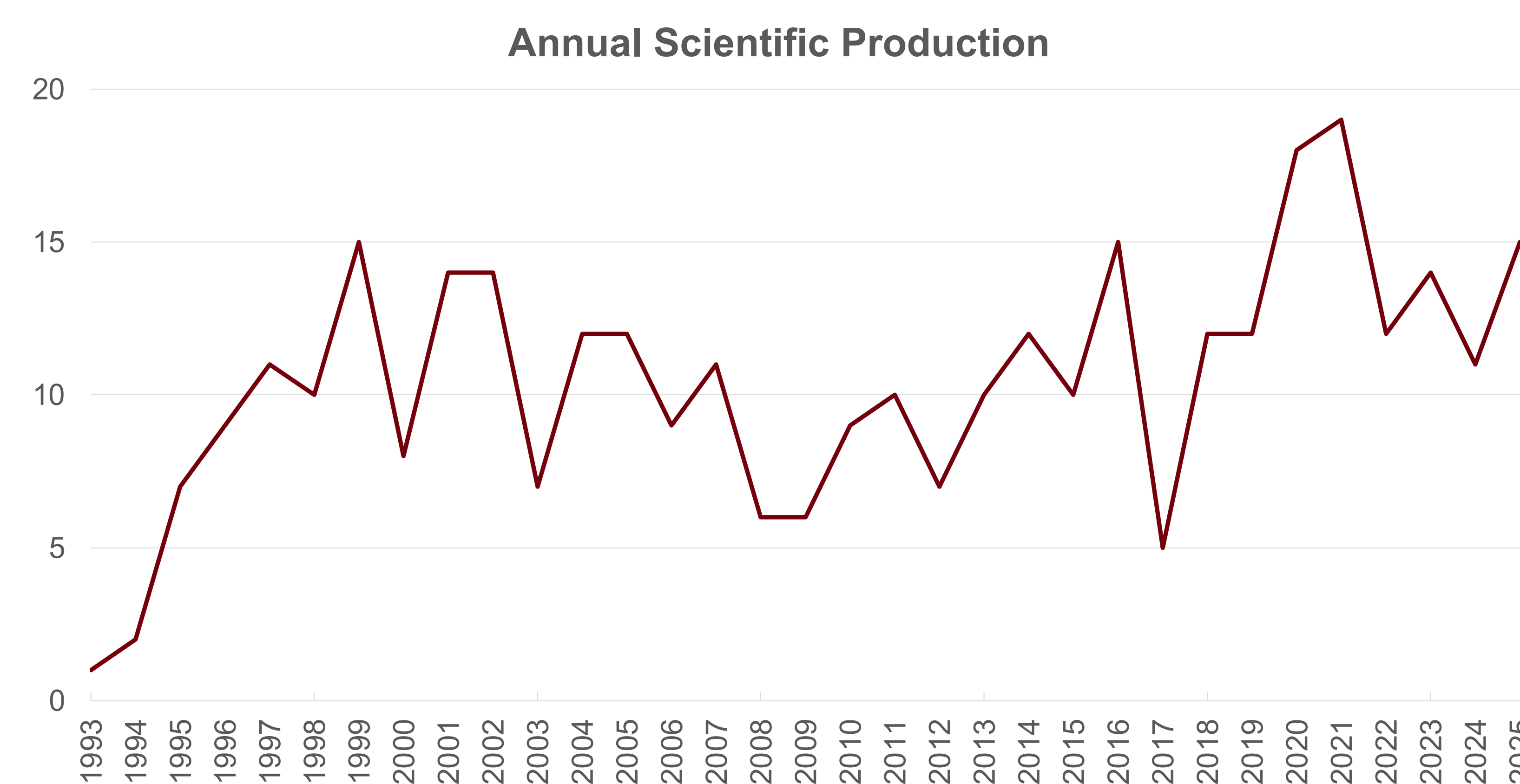


*AB, abstract; DI, DOI; LA, language; RP, reprint/corresponding author address; ID, database-generated keywords (Keywords Plus in WoS); DE, author keywords; CR, cited references; WC, Web of Science categories; C1, author affiliation/address; SO, source or journal title.
Results shown in this poster reflect the final harmonized dataset after deduplication, metadata enrichment, and manual verification; therefore, some counts may differ slightly from the accepted abstract.

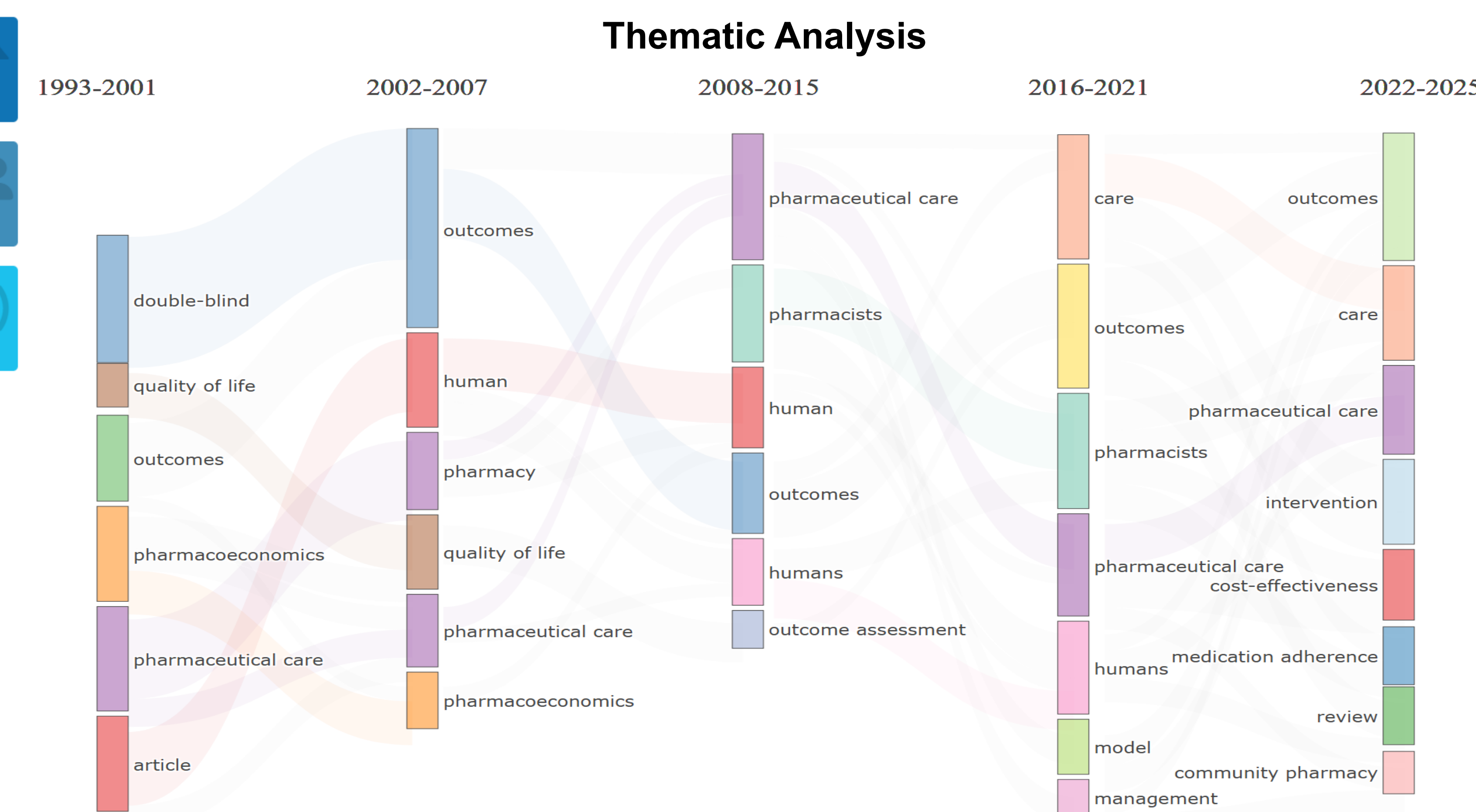
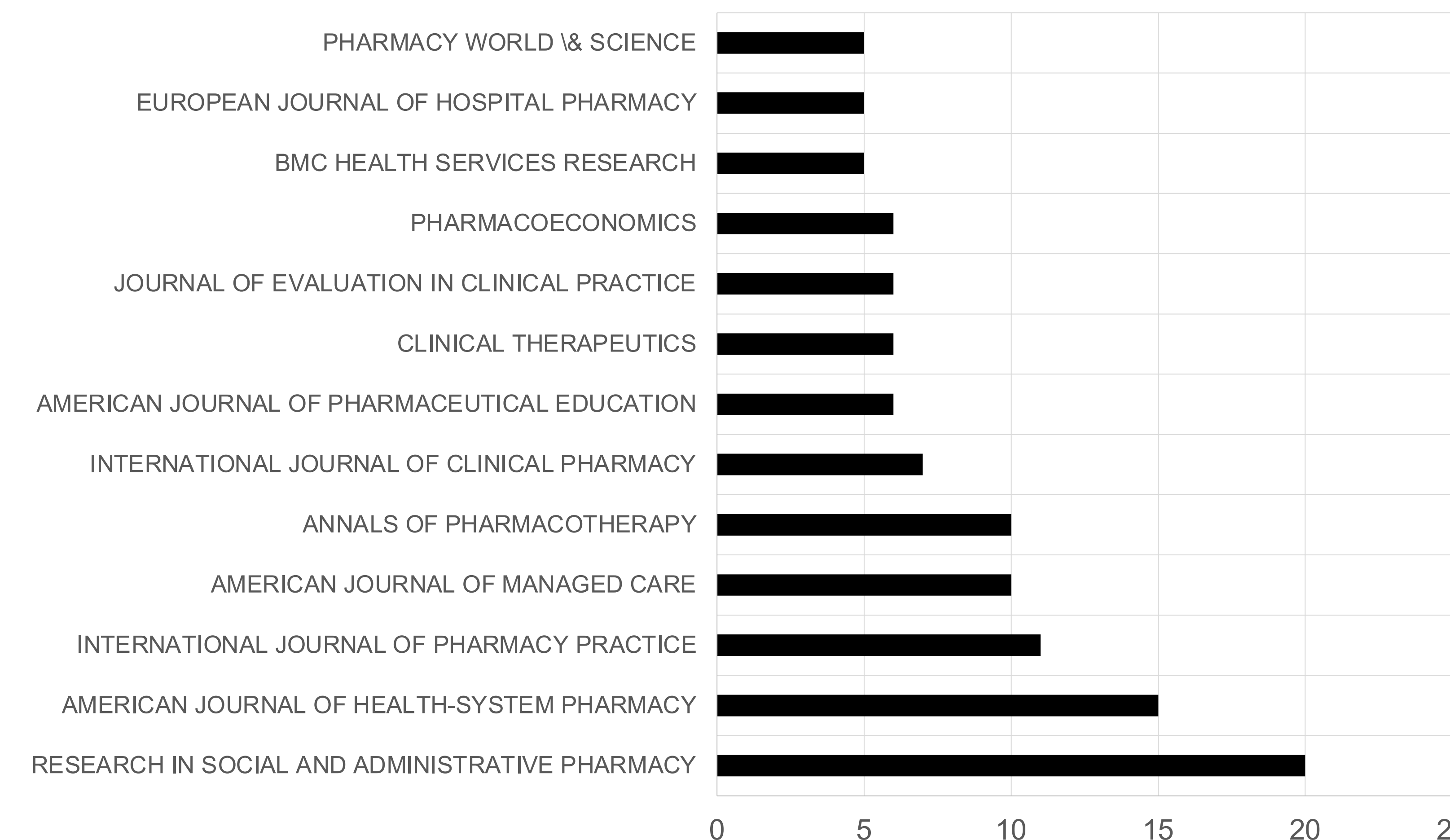
Key Findings

- Bibliometric analysis of the ECHO model shows **steady growth** since its introduction, with **broad uptake across countries, disciplines, and journals**.
- Thematic evolution** shifted from foundational concepts and drug efficacy toward **patient-centered outcomes**.
- ECHO remains a **foundational framework for evaluating healthcare value** across economic, clinical, and humanistic domains.

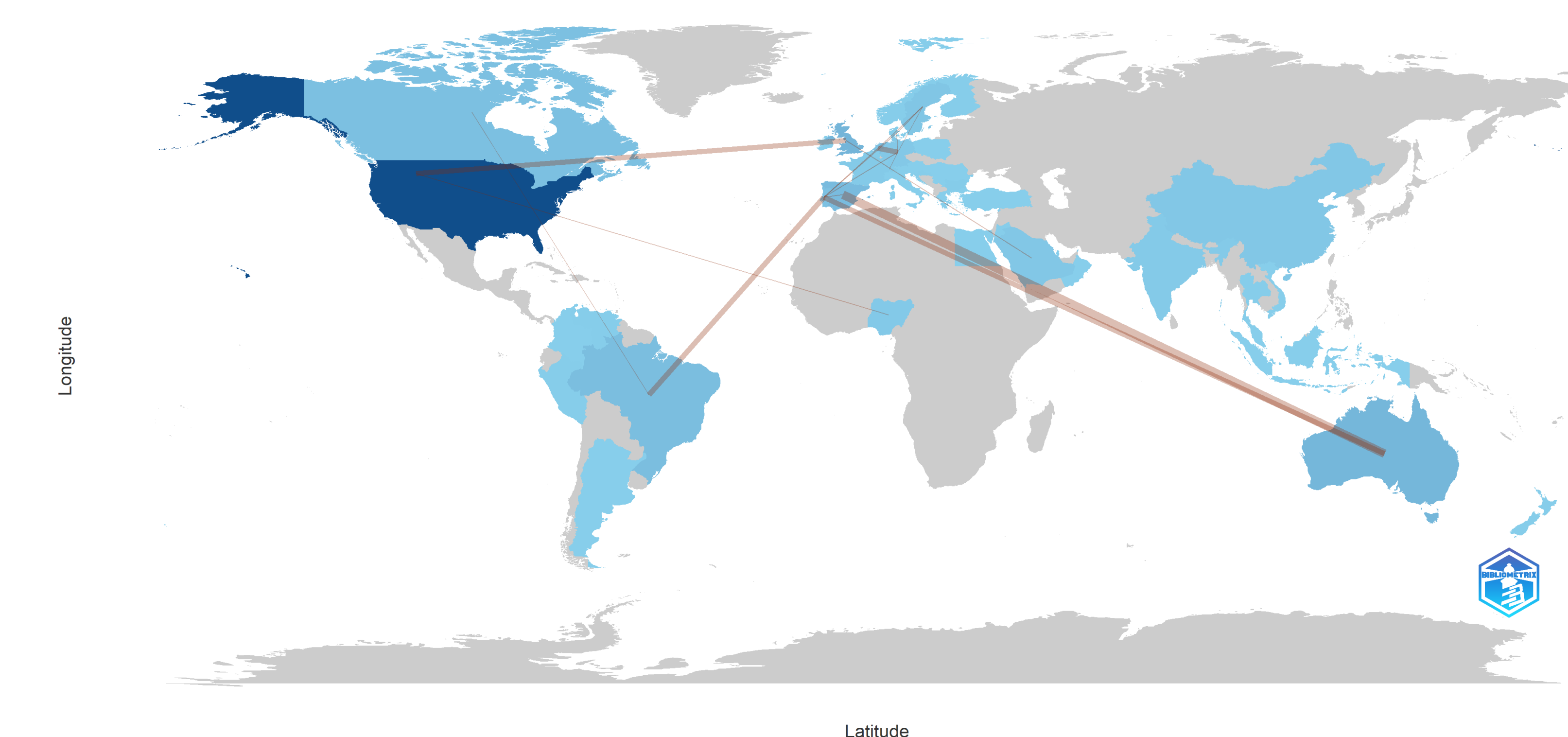
Results



Top Sources by Number of Publications



Country Collaboration Map



References & Additional Resources

- Kozma CM, Reeder CE, Schulz RM. Economic, clinical, and humanistic outcomes: a planning model for pharmacoeconomic research. *Clin Ther*. 1993 Nov-Dec;15(6):1121-32; discussion 1120. PMID: 8111809.
- Aria M, Cuccurullo C. Bibliometrix: An R-tool for comprehensive science mapping analysis. *J Informetr*. 2017 Oct;11(4):959-975. doi: 10.1016/j.joi.2017.08.007.



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