

A Bibliometric Analysis of Private vs Public Systems and Policy Implementation Regarding Universal Healthcare

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Abstract

Focusing on inclusivity and equity, universal healthcare investigates diverse dynamics influencing global health outcomes. This review analyzes the research on healthcare systems and the frequency of success of public and private policies around universal healthcare. Insights gained shed light on the impact of both public and private policies on global health coverage. Articles were obtained from the online database Web of Science, focusing on “public health systems” and “private health systems.” Articles were refined with keywords that are relevant to public, private, or hybrid healthcare models. From there, the top 100 most-cited articles published between 1998 and 2023 were selected. Using the Bibliometrix package to perform a bibliometric analysis, eligible studies were categorized by frequency of topic and distribution of articles related to universal healthcare across various countries. Of the top 100 most-cited papers, 16 were published in 2018 and 14 in 2019. Healthcare researchers published 9 papers in both 2017 and 2023. Countries like the United States of America (USA), the United Kingdom (UK), and Australia were responsible for significant published research, with the USA leading in the top 100 most-cited healthcare studies with 30.6%. The data showcase similarities in the commitment to research regarding equitable healthcare services and practices across these higher-income countries. Common research elements include both public and private sector involvement, emphasizing preventive care, and efforts to achieve universal health coverage. However, specific approaches, funding mechanisms, and regulatory frameworks vary, reflecting each country’s unique healthcare systems and political contexts. With an overall increase in publications, higher-income countries contribute more top-

cited papers than lower-income countries. More emphasis should be placed on healthcare research in lower-income countries such as South Africa, Ethiopia, India, Iran, and Brazil.

Keywords

Bibliometrics, Top Papers, Public Healthcare, Private Healthcare, Policy, Affordability, Healthcare, Universal Healthcare, Insurance, Analysis, Socioeconomic, Comprehensive, Population

1. Introduction

Universal healthcare is currently regarded as one of the leading themes of socio-economic controversy in the United States and worldwide [1]. The present healthcare system within the United States utilizes a mixed approach with both public and private systems, where citizens obtain health insurance based on their financial ability [1]. “Private” health systems require their members to pay individually for their given healthcare, while “public” health systems are government-run systems that provide healthcare services for a large group at lower costs [2]. All systems have defined “policies,” which refer to the regulations and rules that control the operation of various healthcare systems [2]. The American system depends on insurance companies such as Blue Cross Blue Shield and Kaiser Permanente and government-subsidized programs, including Medicaid and Medicare [1]. However, a universal healthcare system offers a new perspective [1]. Recent research emphasizes how universal healthcare provides equitable access for an entire population [1]. As a result, novel forms of healthcare systems have been developed [1]. For example, the United Kingdom’s National Health Services utilizes the primary version, where the privatization of healthcare is minimal, and publicized healthcare is offered to a majority of people [1]. Furthermore, the “2030 Agenda for Sustainable Development” plan introduced healthcare coverage for citizens in lower socioeconomic sectors [3]. This plan provided financial protection by drastically reducing out-of-pocket expenditure among individuals [3]. Not only does the evolving state of healthcare systems worldwide promote benefits for people of various socioeconomic backgrounds, but it also accentuates the importance of relevant research and demonstration of research efforts globally [4]. The significance of universal healthcare research has become evident as healthcare accessibility becomes scarce for people worldwide.

2. Methodology

This study collected bibliographic data from the Web of Science Core Collection. The Web of Science showcases a robust, authoritative database that provides information from 34,000 journals of the world’s total leading research [5]. The vast time period it covers, extending from the early 1900s to the present, and its daily

updating frequency further prove its validity [5]. This platform was selected due to its comprehensive coverage of peer-reviewed publications and compatibility with Bibliometrix and RStudio. Web of Science's core function was its selective citation index, something that was lacking in other databases, but was critical for collecting the appropriate bibliographic data [5].

The analysis was completed to examine the research publications related to public and private healthcare systems, exploring the gaps in research between high-income and low-income countries. Although research on universal healthcare exists, a comprehensive bibliometric analysis comparing private and public policy implementation of universal healthcare has not fully been explored in the field of research.

The search was conducted on January 19th, 2024 using the following query string: "universal healthcare", "public health systems", "private health systems". This initial search generated 15,863 of the most-cited research articles on various healthcare systems. Further refinement was conducted on these articles using the following sequential inclusion and exclusion criteria:

- 1) Citation threshold: Articles that contained less than 2 citations were excluded
- 2) Topical relevance: Articles unrelated to healthcare systems or healthcare policy implementation were excluded.
- 3) Contribution to the field: Articles that did not provide substantial insights or contributions to the field of healthcare systems were excluded.
- 4) Keywords filtering: Articles were then screened for relevance by filtering the initial search with terms such as "universal healthcare", "public", "private", "policy", "public insurance", and "healthcare systems or infrastructure".

After applying the above criteria to the initial search query, the articles were then sorted by the highest number of citations, indicating the significant impact they have on healthcare research [6]. Only the 100 most-cited articles were included in the final dataset. The selected articles were published between 1998 to 2023 and included 81 articles, 14 reviews, 2 proceeding papers, and 3 editorial materials.

These selected articles were saved to a "marked list" in Web of Science and then exported for Bibliometric analysis using RStudio and Bibliometrix, an open-source toolkit built on the R programming language. Exported fields included author, title, source, abstract, keyword, addresses, cited references, and usage data (Figure 1).

3. Results

At least 2 papers were released each year from 2008 to 2023 (Figure 2). The years 2017-2023 provide most of our analyzed papers and constitute approximately 48% of the total papers cited. In 2018 the most papers were produced, amounting to 16 papers. 9 papers were produced in both 2017 and 2023.

Senior authors were most frequently affiliated with Harvard T.H. Chan School of Public Health and contributed 3 articles to our research (Figure 3). Senior

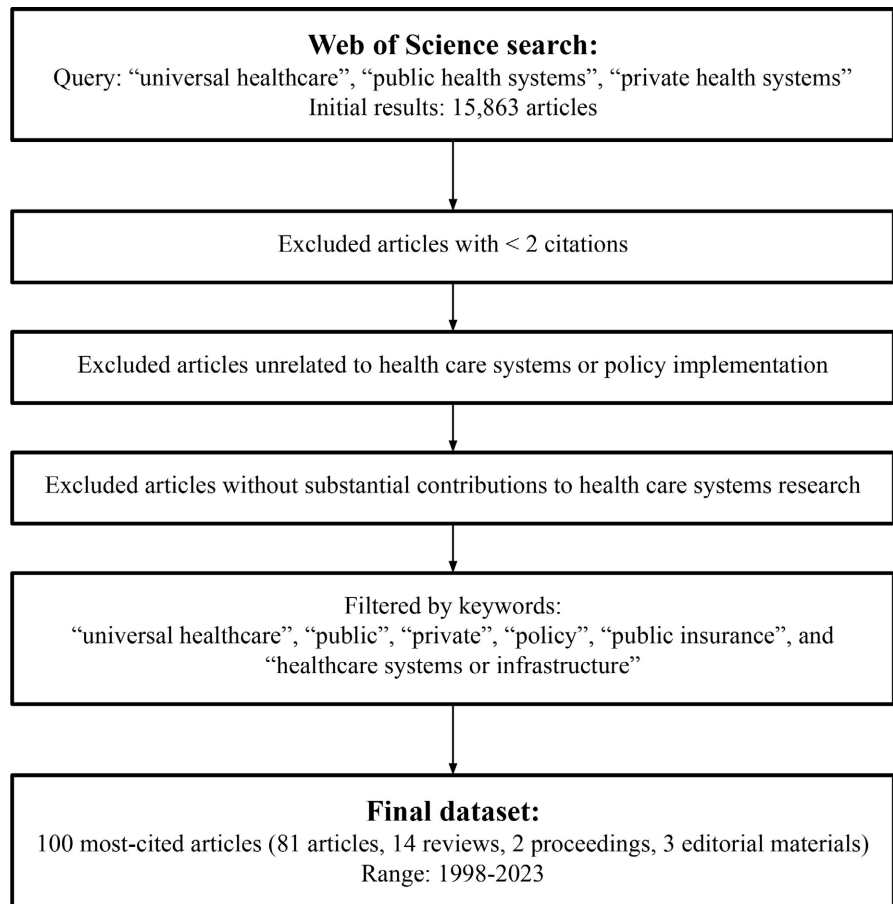


Figure 1. Flow diagram illustrating the procedures to discern the top 100 cited articles or eligible studies related to Universal Healthcare. Eligible studies included articles (n = 81), reviews (n = 14), proceeding papers (n = 2), and editorial materials (n = 3). Non-eligible studies (n = 15,763) are the remaining results from our Web of Science search.

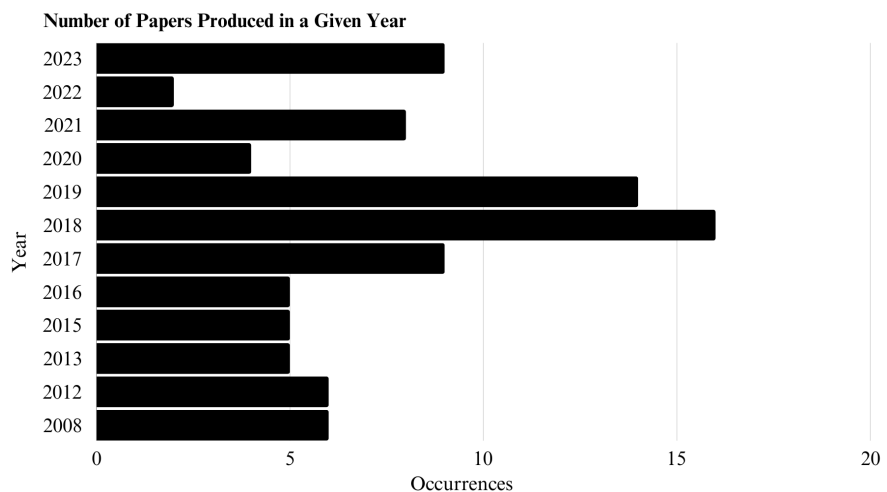


Figure 2. Distribution frequency for the top 100 most-cited papers. In order to condense the statistical information conveyed in the graph, articles with less than 2 occurrences were excluded. Within the span of 16 years, most of the top 100 most-cited papers were published in 2018 (n = 16), followed by the year 2019 in which 14 studies were released.

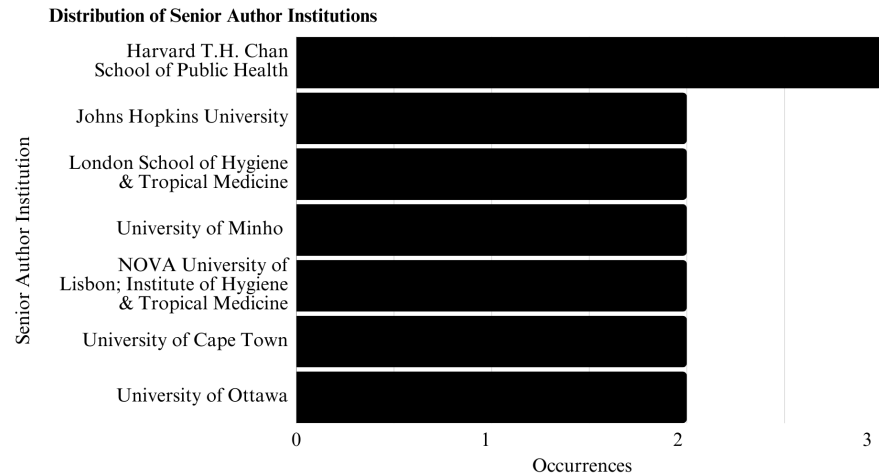


Figure 3. Frequency of affiliated institutions for the senior authors of the top 100 most-cited papers. In order to condense the statistical information conveyed in the graph, articles with less than 2 occurrences were excluded.

authors affiliated with Johns Hopkins University, London School of Hygiene & Tropical Medicine, University of Minho, NOVA University of Lisbon; Institute of Hygiene & Tropical Medicine, University of Cape Town, and University of Ottawa contributed 2 articles each. Affiliates of Harvard T. H. Chan School of Public Health contributed the most articles, with 3, constituting about 15% of the articles found.

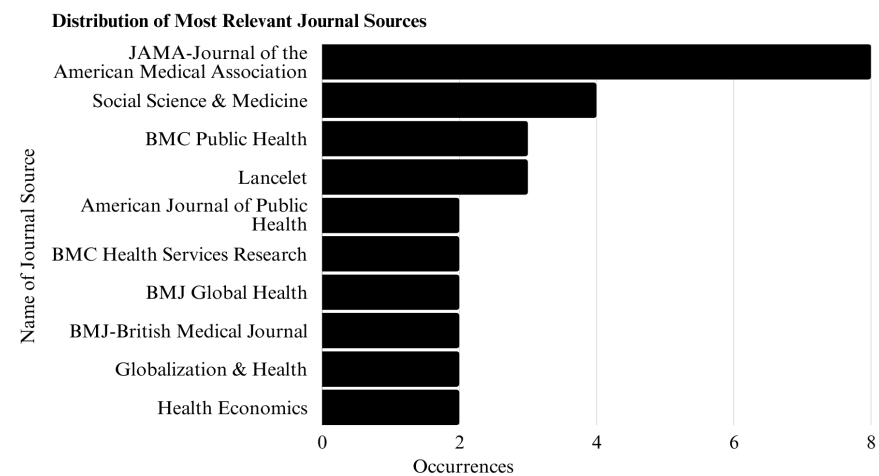


Figure 4. Frequency of most relevant sources for the top 100 most-cited papers. In order to condense the statistical information conveyed in the graph, articles with less than 2 occurrences were excluded. These papers originate from 72 different journals/sources, with “JAMA - Journal of the American Medical Association” contributing the most ($n = 8$), followed by “Social Science Medicine” ($n = 4$).

Furthermore, as depicted in **Figure 4**, the Journal of the American Medical Association (JAMA) has the highest frequency of published papers among the studies analyzed. JAMA accounted for a total of 8 articles, which was 9.88% of the total

articles, and is followed by the Social Science & Medicine Journal with 4 publications (4.94%), as well as BMC Public Health and the Lancet with 3 publications (3.70%). American Journal of Public Health, BMC Health Services Research, BMJ Global Health, BMJ-British Medical Journal, Globalization & Health, and Health Economics all had the same number of occurrences ($n = 2$). It comprised the last 14.8% of the journal sources with at least 2 occurrences in the top 100 cited papers. JAMA accounted for 4.94% more papers than Social Science & Medicine, the second most frequent journal source. JAMA also accounted for 7.41% more papers than the lowest recorded journals, American Journal of Public Health, BMC Health Services Research, BMJ Global Health, BMJ - British Medical Journal, Globalization & Health, and Health Economics, each having 2 occurrences.

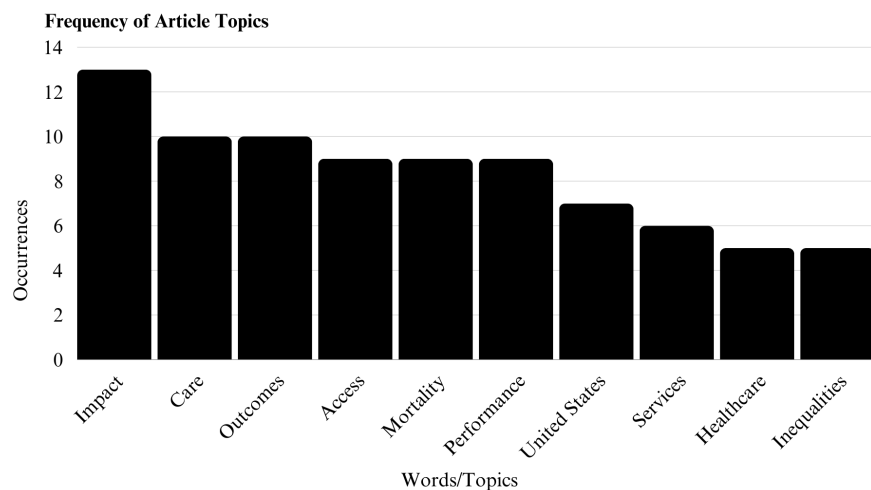


Figure 5. Top 10 topics in the top 100 most-cited papers on policy implementation based on geographical and cultural context. In order to condense the statistical information conveyed in the graph, articles with less than 2 occurrences were excluded.

As seen in **Figure 5**, The most frequently studied topic and dominant research focus was the “impact” of healthcare policy implementation, accounting for 14.4% of the total word/topic occurrences. The “care” and “outcomes” of universal healthcare policy implementation closely followed and were also frequently studied topics, accounting for 11.1%. Policy implementation related to “access” to universal healthcare, “mortality rates” in universal healthcare, and “performance” of universal healthcare systems shared significant focus and were the next most frequent article topics, accounting for 10% of the total word/topic occurrences each. Lastly, “United States” (7.8%), “services” (6.7%), “healthcare” (4.4%), and “inequalities” (4.4%) are topics that had a moderate focus.

Topics related to direct effects and qualitative aspects (*i.e.* impact, care, outcomes) of healthcare policy implementation have a dominant focus and contribute to 36.7% of the total word/topic occurrences, implying an interest in patient-centered results and quality of policy changes in healthcare. Additionally, there is a significant focus on systemic evaluations (*i.e.* access, mortality rates, perfor-

mances, inequalities) that account for 34.4% of the total word/topic occurrences; this suggests that there is interest in the operational efficiency of healthcare policies on a systemwide basis. Lastly, individual, specific themes, such as “United States,” “services,” and “healthcare” make up the remaining total of 18.9%.

Frequency of Most Cited Countries Within the Top 100 Papers

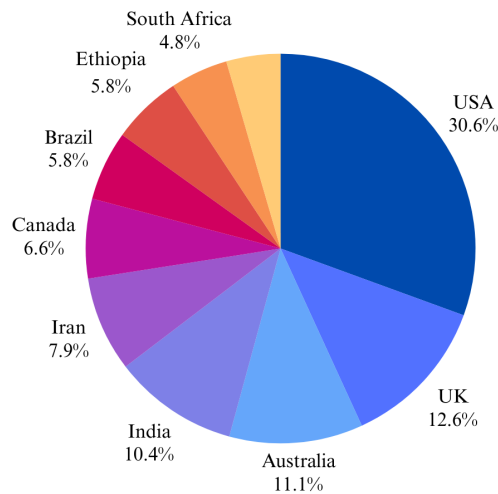


Figure 6. Frequency of the most cited countries found within the top 100 papers. Within the top 100 papers, the USA contributes the largest percentage of papers, making up 30.6% of cited journals/sources.

In **Figure 6**, the top 100 studies were found to be based in several countries around the globe. The United States of America (USA) demonstrated the highest frequency of 30.6%, followed by the United Kingdom (UK) at 12.6%, Australia at 11.1%, and India (10.4%) respectively. Canada contributes the third lowest frequency of studies, making up 6.6% of papers. Ethiopia and Brazil follow with 5.8% of papers each, and South Africa contributes the fewest at 4.8%. The USA contributed at least 18% more papers than the 2nd highest country, the UK, and 25.8% more than South Africa.

4. Discussion

The top 100 most-cited articles have provided valuable insights into the global landscape of policy impact on public and private healthcare systems, revealing how the articles analyzed spanned 25 years from 1998 to 2023, with a consistent production of two or more papers per year starting from 2008. The years 2017-2023 provide most of our analyzed papers and constitute approximately 48% of the total papers cited. In 2018 the most papers were produced, amounting to 16 papers. In both 2017 and 2023, 9 papers were produced. A diverse pool of resource types allows for understanding data and information across multiple fields and expertise regarding the equity of universal healthcare.

From an analysis of multiple countries, the United States demonstrates the highest frequency of 30.6% of journal production, followed by the UK at 12.6%

and Australia at 11.1%. The higher percentage of research in the USA is likely due to the country's advanced workforce that is adequately equipped and willing to improve their quality of life, economic productivity, and societal infrastructure [7]. The pressing need to address health concerns often translates into increased research efforts to inform evidence-based policymaking [8]. Other educational programs, policy impacts, and technological advancements further contribute to the nation's prominent position in public health research [6]. One such example of policy impact in the United States is the subsequent increase in quit attempts of cigarette usage which occurred after the use of more graphic cigarette warnings. Policies requiring graphic warnings about the dangers of cigarettes led to 68% of participants switching to alternative nicotine products and a subsequent increase in quit attempts [9].

Within the various countries highlighted by the data, some institutions and journal sources ranked the highest with the most cited papers on universal healthcare. With 3 papers, the Harvard T.H. Chan School of Public Health was most frequently associated with the senior author of the papers. Furthermore, the Journal of the American Medical Association (JAMA) has the highest frequency of published papers among the studies we analyzed. It focuses on healthcare policy implementation, specifically on evidence-based research to establish the impact of such policies, suggesting that JAMA is considered a "relevant" publisher. JAMA accounted for a total of 8 instances and is followed by the Social Science & Medicine Journal with 4 publications, as well as BMC Public Health and the Lancet with 3.

We also uncovered how the majority of publications, both about universal healthcare and within the review, originate from higher-income countries such as the United States of America, the UK, and Australia. With more than 60% of the cited countries considered "higher-income countries," there is a notable lack of representation for low-income nations which may be due to the limited number of studies and articles available online.

While public systems are cost-effective, they offer fewer options for medical services compared to the broader range provided by private plans [10]. This dual exploration of both systems emphasizes the pivotal role that socioeconomic factors play in shaping healthcare dynamics, influencing access to quality healthcare, educational opportunities, and overall living conditions [4]. The topics most cited throughout the 100 articles that were analyzed included "impact", "care", and "outcomes" which emphasize the correlation between universal healthcare and how important its influence can be in regions where universal healthcare did not previously exist. Universal healthcare bridges the gap between lower socioeconomic healthcare systems and private healthcare systems to create equitable care. Previous research consistently highlights that individuals with higher socioeconomic status have better access to quality healthcare, educational opportunities, and improved living conditions [4]. The interconnected nature of the impact, performance, outcomes, mortality, care, and services as topics emphasizes the vital

role that policy decisions play in determining the overall equity of healthcare systems and their services.

Without acknowledging the limitations within our analysis, we would be denying the emergence of critical perspectives on our research. The quantity of our data is limited in that further sampling in low-socioeconomic areas and medically underserved populations should occur to increase our coverage. Relying solely on Web of Science to extract data may have excluded relevant articles available in other databases that are pivoted away from the traditional disciplines that Web of Science focuses on. The utilization of primarily Web of Science may have caused an underrepresentation of the interdisciplinary research that universal healthcare is dependent upon. Therefore, other external databases and supplementary methods should be considered as a way to deepen the breadth of research related to universal healthcare.

Future research should include further exploration of the differences and unique roles between public and private healthcare systems in nations of varying income levels. Though public healthcare is typically available amongst most of the population in lower-income countries, it is extremely underfunded. Private healthcare is typically only provided to those who can either afford the insurance or pay out-of-pocket, creating what is commonly known as the two-tier healthcare system, which ensures that only individuals with the means to pay can receive quality healthcare [11]. To reduce this disparity, research towards promoting social, political, and economic change should be conducted to identify solutions to these core issues and be utilized to create well-meaning policies.

5. Conclusion

Our analysis explores the association between the 2 most common systems in our research, private and public healthcare, and examines their policies from a global, geographical, and cultural context. This analysis identified the top 100 cited publications in healthcare systems, highlighting the various studies conducted by bibliometrics and other visualizations. First-world countries' research in healthcare systems contributes a significant number of papers among the top 100 most-cited healthcare studies compared to third-world countries. Additionally, the papers originate from 72 different journals/sources, with the "Journal of the American Medical Association (JAMA)" contributing the greatest number of publications, followed by "Social Science Medicine." Our findings demonstrate the increasing interest in universal healthcare research, particularly emphasizing the impact of private versus public policy implementation.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Zieff, G., Kerr, Z.Y., Moore, J.B. and Stoner, L. (2020) Universal Healthcare in the

- United States of America: A Healthy Debate. *Medicina*, **56**, Article 580.
<https://doi.org/10.3390/medicina56110580>
- [2] Preker, A.S., Cotlear, D., Kwon, S., Atun, R. and Avila, C. (2021) Universal Health Care in Middle-Income Countries: Lessons from Four Countries. *Journal of Global Health*, **11**, 1-17. <https://doi.org/10.7189/jogh.11.16004>
- [3] Stevens, A., Neilson, M., Rasanathan, K., Syed, S.B. and Koller, T.S. (2023) Quality and Equity: A Shared Agenda for Universal Health Coverage. *BMJ Global Health*, **8**, e012561. <https://doi.org/10.1136/bmjgh-2023-012561>
- [4] McMaughan, D.J., Oloruntoba, O. and Smith, M.L. (2020) Socioeconomic Status and Access to Healthcare: Interrelated Drivers for Healthy Aging. *Frontiers in Public Health*, **8**, Article 231. <https://doi.org/10.3389/fpubh.2020.00231>
- [5] Birkle, C., Pendlebury, D.A., Schnell, J. and Adams, J. (2020) Web of Science as a Data Source for Research on Scientific and Scholarly Activity. *Quantitative Science Studies*, **1**, 363-376. https://doi.org/10.1162/qss_a_00018
- [6] Rizvi, D.S. (2022) Health Education and Global Health. *Journal of Education and Health Promotion*, **11**, Article 262.
- [7] Deitz, S. and Freyman, C. (2024) The State of U.S. Science and Engineering 2024. U.S. National Science Foundation.
<https://ncses.nsf.gov/pubs/nsb20243/discovery-u-s-and-global-r-d>
- [8] Barbosu, S., Axelsen, K. and Ezell, S. (2024) Evidence to Inform Biopharmaceutical Policy: Call for Research on the Impact of Public Policies on Investment in Drug Development. *Health Affairs Scholar*, **2**, qxae129.
<https://doi.org/10.1093/haschl/qxae129>
- [9] Morgan, J.C., Sutton, J.A., Yang, S. and Cappella, J.N. (2020) Impact of Graphic Warning Messages on Intentions to Use Alternate Tobacco Products. *Journal of Health Communication*, **25**, 613-623.
<https://doi.org/10.1080/10810730.2020.1827097>
- [10] Goodair, B. and Reeves, A. (2024) The Effect of Health-Care Privatisation on the Quality of Care. *The Lancet Public Health*, **9**, e199-e206.
[https://doi.org/10.1016/s2468-2667\(24\)00003-3](https://doi.org/10.1016/s2468-2667(24)00003-3)
- [11] Sjögarde, P. and Didegah, F. (2022) The Association between Topic Growth and Citation Impact of Research Publications. *Scientometrics*, **127**, 1903-1921.
<https://doi.org/10.1007/s11192-022-04293-x>