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Governance and decision-making in the health system: a bibliometric analysis

Gobernanza y toma de decisiones en el sistema de salud: un análisis bibliométrico

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ABSTRACT

The objective of this bibliometric study was to characterize the evolution, structure, and internal dynamics of the international literature on health governance. To this end, a corpus of 934 documents indexed in Scopus between 1974 and 2025 was analyzed using a descriptive and retrospective design. To ensure traceability and consistency, the corpus procedure was performed using Bibliometrix (R), a tool used for the normalization and cleansing of metadata and the calculation of productivity, collaboration, and impact indicators. An analysis of the year of publication of the references (RPYS) was also implemented. Complementarily, VOSviewer was used to construct and visualize co-authorship networks, co-citations, and thematic clusters. The results showed sustained growth, with a marked acceleration since the 2000s and a sharp increase during the COVID-19 pandemic, with production concentrated in a small number of countries, institutions, and sources, revealing consolidated epistemic cores and patterns of transnational collaboration. A significant participation of international funding agencies as shapers of thematic priorities was also observed. The study identified structural gaps as well as emerging niches, particularly the need to integrate perspectives from the global South, strengthen qualitative approaches, and deepen critical analysis of the relationship between funding and the research agenda. Thus, these findings offered a structural vision that contributed to understanding the consolidation of the field and, in turn, allowed for the orientation of future lines of research on health governance.

Keywords: Health Governance; Scientometrics; Scientific Networks; Bibliometric Analysis.

RESUMEN

El presente estudio bibliométrico tuvo como objetivo la caracterización de la evolución, estructura y dinámicas internas de la literatura internacional sobre la gobernanza en salud, por lo que se analizó un corpus de 934 documentos indexados en Scopus comprendidos entre 1974 y 2025, mediante un diseño descriptivo y retrospectivo. Para garantizar la trazabilidad y consistencia el procedimiento del corpus se ejecutó con Bibliometrix (R) herramienta utilizada para el proceso de normalización y depuración de los metadatos, el cálculo de indicadores de productividad, colaboración e impacto, igualmente fue implementado el análisis del año de publicación de las referencias (RPYS). De forma complementaria se empleó VOSviewer para la construcción y visualización de redes de coautoría, co-citacion y clústeres temáticos. Los resultados evidenciaron un crecimiento sostenido, con aceleración marcada desde los años 2000

y un aumento abrupto durante la pandemia de COVID -19, concentrándose la producción en un conjunto reducido de países, instituciones y fuentes, lo cual revela núcleos epistémicos consolidados y patrones de colaboración transnacional, igualmente se observó una significativa participación de organismos financiadores internacionales como configuradores de las prioridades temáticas. El estudio identificó vacíos a nivel estructural al igual que nichos emergentes, particularmente la necesidad de integrar perspectivas del Sur global, fortalecer enfoques cualitativos y profundizar el analisis crítico de la relación existente entre financiamiento y agenda investigativa, así pues, estos hallazgos ofrecieron una visión estructural que contribuyó a comprender la consolidación del campo y a su vez permite orientar futuras líneas de investigación sobre gobernanza en salud.

Palabras clave: Gobernanza en Salud; Cienciometría; Redes Científicas; Análisis Bibliométrico.

INTRODUCTION

Health governance has become a particularly relevant axis for the study of contemporary health systems, insofar as it articulates issues of institutional design,[1] decision-making, coordination of actors and accountability mechanisms. Thus, its incorporation into the field of public health and consequently into health systems studies has accompanied processes of sectoral reform, expansion of global health and growing interdependence between international organizations, national governments and private actors.

In this context, the notion of health governance[2] offers a framework for the description of how the responsibilities and capacities of the different levels of the health system are structured, and how responses to challenges such as health emergencies, chronicity or inequalities in access are oriented.[3,4]

The development of this field has been accompanied by a steady increase in scientific production that explicitly uses the language of health governance to analyze policies,[5] organizational arrangements[6] and system performance;[7] however, the expansion of the literature has not translated into a systematic synthesis of its overall configuration.

In particular, less is known about how publications are distributed among different types of documents, which journals function as central spaces of dissemination, which countries and institutions concentrate most of the work and which participate marginally, or how collaborative networks between authors and organizations are structured.[8,9]

Furthermore, research in health governance takes place in a scientific environment marked by asymmetries in terms of editorial visibility, access to funding and dominance of certain languages or regions,[10,11] which makes it relevant to examine not only the volume of production but also the structure it adopts, the concentration of literature within a subset of journals, the centrality of certain countries and institutions, the composition of co-authorship networks and the role of funding agencies in the orientation of research agendas. Thus, an analysis based on objective indicators makes it possible to describe these dynamics without anticipating interpretations, leaving the discussion of their implications for specific sections.

From the intellectual point of view, it is necessary to identify which references have been most cited and which have functioned as milestones in the evolution of the field; consequently,

the reconstruction of these foundations makes it possible to observe at which moments certain conceptual frameworks are consolidated, which types of documents acquire greater influence and how recent publications relate to a knowledge base accumulated over the decades.

On the other hand, the use of specific techniques, such as the analysis of the year of publication of the references cited, offers useful information for characterizing this trajectory without implying judgments about its normative orientation or biases.

Given this scenario, a bibliometric study[12] of broad scope provides a suitable way to describe the architecture of health governance research,[13] so this paper analyzes the production indexed in an international reference database during the period 1974-2025, considering indicators of productivity, collaboration, citation and funding.

Therefore, the general objective is oriented to characterize the configuration and evolution of the literature on health governance based on verifiable quantitative data; specifically, the aim is to (i) describe the temporal dynamics of publications and their distribution by documentary types and sources; (ii) examine the participation of countries, institutions and authors,[14] as well as their collaboration patterns; (iii) identify the main funders declared in the documents; and (iv) analyze the citation patterns to recognize the works and years of publication that have acquired greater relevance in the development of the field,[15] as well as the inferences, critical interpretations and possible implications of these findings which, as noted, will be made in later sections of the chapter.

METHOD

This bibliometric study[16,17] adopted a descriptive and retrospective design aimed at characterizing the scientific production on governance in health in the indexed literature, in order to ensure the reproducibility and traceability of the corpus, also, we worked with a closed set of data obtained from a single query in the Scopus database (Elsevier), which is internationally recognized for its broad and consistent coverage in health sciences, health policies and related disciplines.

Thus, the choice of a single database responded to the need to maintain homogeneity in the metadata, avoid variations generated by differences between platforms and ensure that the calculations derived from the bibliometric indicators were based on a stable documentary ecosystem.[18]

Therefore, the search was executed through a Boolean equation designed to maximize sensitivity and specificity with respect to health governance. This equation was applied to the title, abstract and keyword fields (TITLE-ABS-KEY),[19] combining terms related to governance with descriptors specific to health systems and services, resulting in the formula:

TITLE-ABS-KEY (((“Health Governance” OR “Governance in Health Systems” OR “Health System Governance” OR “Decision-Making in Health” OR “Health Decision-Making” OR “Policy-Making in Health Systems” OR “Governance and Decision-Making in Healthcare” OR “Health Policy Governance” OR “Strategic Decision-Making in Health Systems” OR “Governance Structures in Health”) AND (“Health Systems” OR “Healthcare Systems” OR “Public Health Systems” OR “Hospital Management” OR “Health Services Management”)).

To this end, it should be noted that the equation was not filtered by language, country

or type of document, since the objective was to recover the broadest possible universe of publications explicitly related to the subject.

The records obtained were subjected to an exhaustive purification process in which, first, duplicates were eliminated by exact and approximate coincidence between titles, DOIs, authors, years of publication and sources; second, journal names were standardized, standardizing abbreviations and spelling variants according to the official names included in Scopus.

Subsequently, authors were standardized, grouping variants of the same researcher by verifying initials, matching affiliations and, when available, ORCID identifiers; a similar process was applied to institutions, consolidating under the same entry the various names belonging to the same university or research center; in the particular case of affiliations without country or assigned to ambiguous names, these were retained for the general corpus but were not incorporated in the geographical analyses.

Consequently, the final corpus consisted exclusively of documents with complete metadata on year of publication, source, authorship, institutional affiliations and references cited; likewise, original articles, reviews, book chapters, conference papers, notes and editorials were included, excluding errata and records without essential data for their classification. The information was structured following standard criteria in bibliometric studies, considering as units of analysis the documents, countries, institutions, authors, journals and funding agencies declared.

For the processing and quantitative analysis, specialized tools of wide recognition in the scientific literature were used, such as Bibliometrix (R), which was used for central corpus management, calculation of productivity, collaboration and impact indicators, metadata normalization and implementation of the analysis of the year of publication of references (RPYS), such technique allows identifying the intellectual milestones of the field from the temporal distribution of cited references.

VOSviewer was also used for the construction and visualization of co-authorship networks between authors, institutions and countries, as well as for the representation of density maps and thematic clusters.[20] Internationally accepted standard configurations were also used, such as the Association Strength normalization method and the selection of minimum thresholds to avoid excessive fragmentation of the networks.

The temporal dynamics of the field was analyzed through the elaboration of annual series of publications and the adjustment of a logistic growth model to describe the global behavior of scientific production over time; the procedure allows estimating the parameters associated with the life cycle of the field, including the theoretical carrying capacity, the inflection point and the time scale, using nonlinear adjustments implemented in R; such procedures allow characterizing the transition of the field toward phases of accelerated growth or relative maturity.

All procedures were developed exclusively on the basis of secondary data obtained from a bibliographic base, without the intervention of individuals or handling of sensitive information, so that ethical approval was not required, and the conditions of use of the Scopus base and the restrictions associated with the manipulation of records were fully respected.

DEVELOPMENT

Health governance has evolved from a marginal administrative concept to become a central category for understanding the functioning, coordination and decision-making in contemporary health systems. Its consolidation responds to structural transformations in health policies, the expansion of global health and the emergence of new configurations of public, private and multilateral actors involved in the management of the sector.[21] This context has allowed the field to diversify in approaches, agendas and levels of analysis, which requires a systematic approach to characterize its development and internal patterns.

At a conceptual level, health governance integrates dimensions related to authority, accountability, participation, intersectoral regulation[22] and decision-making mechanisms, and these dimensions have been approached from multiple disciplines such as public health, public administration, economics, political science and even international studies, which has generated a cross-cutting field where diverse theoretical and methodological perspectives converge.

This conceptual pluralism explains why the literature on health governance is distributed among general health policy journals, specialized health system publications and interdisciplinary platforms that address complex problems such as resilience, equity or global governance.

The expansion of the field is also linked to institutional and geopolitical transformations[23] that have altered the landscape of scientific production, so the participation of multilateral organizations, cooperation agencies, philanthropic foundations and universities from different continents has configured an ecosystem where technical, normative, comparative and critical approaches coexist.

This plurality of actors expresses the diversity of producing institutions, as well as the heterogeneity of international collaboration, and the presence of scientific networks with a greater or lesser degree of centralization and regional or global scope; in addition, the specialized literature recognizes the importance of examining journals, since it is where research on governance in health is published that it plays a role as a space for scientific validation and as a node that articulates epistemic communities.[24]

The analysis of sources allows understanding how academic visibility is distributed, what types of contributions predominate and which are the institutional spaces that concentrate the publication of relevant works, thus, the examination of documentary typologies provides additional information on the degree of maturity of the field, by showing the relative weight of original articles, reviews, book chapters and other forms of scientific communication.

The participation of countries and institutions constitutes another essential dimension for interpreting the development of the field. In this sense, geographical and organizational analysis not only allows us to identify the main poles of scientific production, but also to observe patterns of collaboration, regional dynamics and the presence of transnational initiatives, thus reflecting both installed capacities in terms of research infrastructure and financing,[25] as well as political and institutional orientations that influence the generation and circulation of knowledge.

Authors and their academic trajectories represent another structural component of research on governance in health; individual actors make it possible to identify those who have

contributed in a sustained manner to the theoretical, methodological or applied development of the field, how co-authorship networks have been formed and which thematic areas concentrate the attention of consolidated researchers; this approach facilitates the distinction between authors who act as conceptual references and those who occupy strategic positions in production or collaboration networks.

Likewise, the funding declared in publications offers key information to understand the direction, priorities and dynamics of the field,[26] the analysis of funders allows identifying the institutions that support health governance research, the patterns of economic support, the relative influence of multilateral organizations, national agencies and private foundations and their impact on research agendas,[27] thus, funding constitutes a structural component that conditions the thematic orientation, research capacity and opportunities for collaboration.[28]

Finally, the intellectual foundations of the field can be reconstructed through the analysis of cited references and the identification of works, authors and theoretical currents that have contributed to shape the contemporary literature, which means that the review of these foundations allows understanding the conceptual roots of the field, its disciplinary influences and the milestones that have marked its evolution.

Together, these dimensions form the analytical framework that allows a comprehensive interpretation of the scientific production in health governance,[29] such a development provides the necessary basis for presenting, in the following section, the quantitative results derived from the bibliometric analysis.[30]

RESULTS

The corpus analyzed consisted of 934 documents published between 1974 and 2025, distributed in 420 indexed sources including scientific journals, books, book chapters, conference proceedings, notes and other types of documents; these records incorporated a total of 7 422 cited references and the participation of 3 988 authors, with an average of 4,87 signatures per document and 129 single-authored works subscribed by 119 authors.

The average age of the literature was 5,9 years, which is indicative of a predominantly recent body of work within the period studied. Likewise, the percentage of international co-authorship reached 42,29 %, showing a considerable level of transnational collaboration in the scientific production recovered.

In addition to the general indicators presented in the descriptive panel, the corpus exhibits a series of additional characteristics that allow us to specify its internal structure; the study period covers 51 years (1974-2025), which provides a broad time horizon to observe the evolution of academic production and the progressive incorporation of approaches related to health governance.

The broad time span, together with the presence of indexed documents corresponding to 2025, suggests the inclusion of online publications with anticipated availability within the database; on the other hand, the total number of sources reflects an appreciable editorial diversity, with participation of scientific journals, books, book chapters and conference proceedings, which is indicative that the subject matter is developed in multiple spaces of dissemination in interaction with various related disciplines.

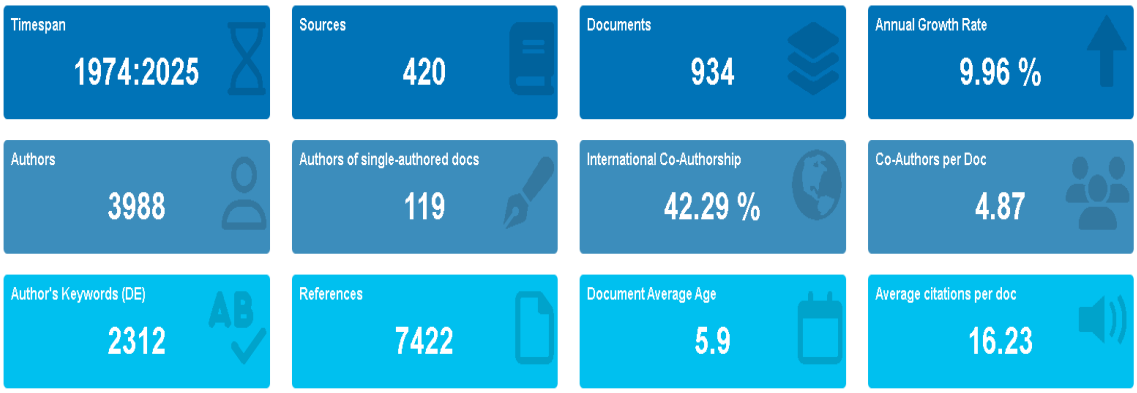

Figure 1.1. General descriptive panel of the corpus analyzed (1974-2025)

The documentary structure has totaled a volume that, although it does not represent the entire universe comprising the literature produced on the subject, stands on a sufficiently broad base to identify patterns of productivity, citation and collaboration; likewise, it provides a glimpse of the annual growth rate of 9,96 %, which shows a sustained increase in the number of publications.

Likewise, in terms of impact, it can be seen that the average is 16,23 citations per document, which places the collection in an intermediate range accompanied by a total of 7 422 cited references, which is indicative of a network of significant bibliographic interconnection.

Similarly, the keyword analysis records 2 312 keywords generated by the authors, which provides a broad basis for future thematic analysis while making clear the coexistence of terms assigned by the indexing systems and descriptors formulated by the researchers.

On the other hand, authorship shows a data of 3 988 authors linked to the collection under analysis, thus, together they presented an average of 4,87 co-authors per document, which indicates a mostly collaborative research environment.

The temporal evolution of scientific production shows a clear shift from an initial stage of limited activity to a period of sustained increase. After several decades of stable behavior and low volumes, the field underwent a progressive expansion that became more pronounced in recent years, forming a pattern of continuous and increasingly pronounced growth.

The annual production of documents shows a behavior marked by a phase of prolonged low intensity between 1974 and the end of the 1990s, which, in turn, shows minimal variations without sustained increases; however, starting in the early 2000s, there is a gradual increase in the annual volume, which is followed by a definite increase between 2010 and 2019.

This trend is notably intensified during the period 2020-2025, in which the curve increases abruptly, reaching the highest values in the entire record. Overall, the annual series reflects the transition from a scenario of marginal production to a phase of continuous expansion, characterized by increasing volumes of publications.

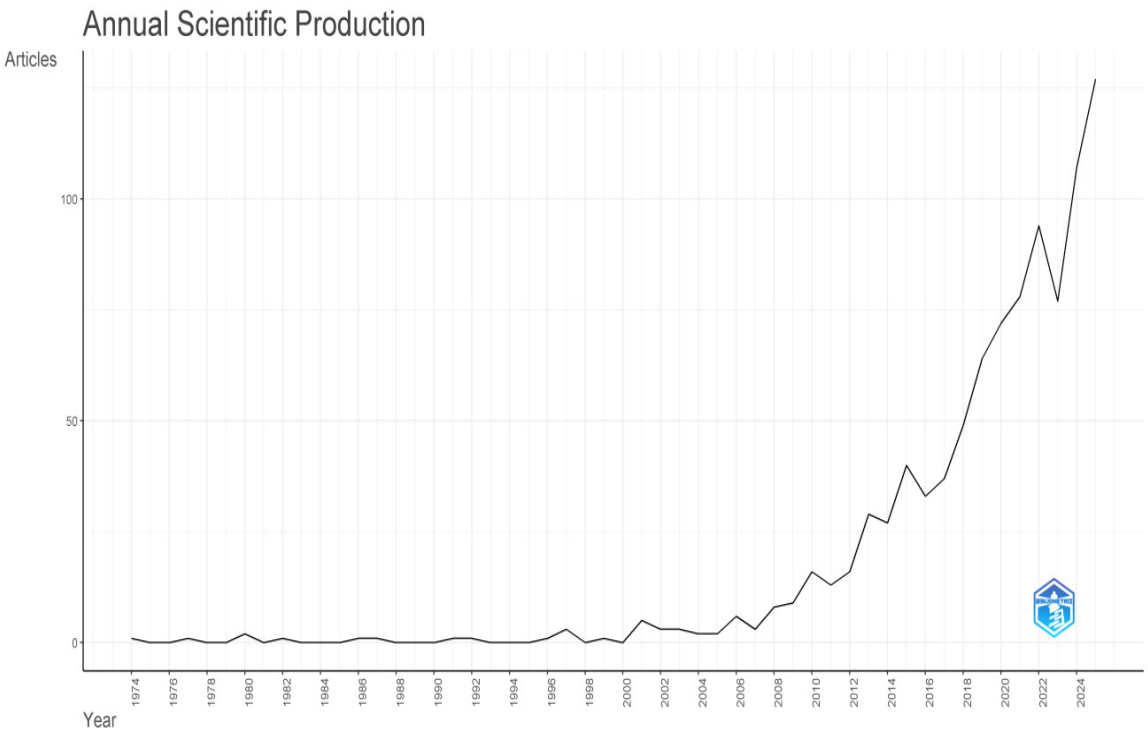

Figure 1.2. Annual scientific production (1974-2025)

The accumulated evolution of the corpus offers a structural reading different from that provided by the annual production, since it allows us to observe the complete historical trajectory of the field and its progression towards more mature configurations, thus, the resulting curve shows a sustained growth without abrupt interruptions, suggesting the existence of a stable and continuous expansion process over five decades.

During the first years, the slope remains practically horizontal, reflecting an incipient development without significant accumulation of literature; however, as the 2000s advance, the curve acquires an increasing slope that intensifies progressively until 2025, indicating that the annual increase observed recently translates into an increasingly accelerated accumulation of the total volume of publications.

On the other hand, the shape of the curve is an early indicator of sigmoid behavior, which is characterized by fields that move from a phase of initial consolidation to stages of sustained expansion; the fact is that the absence of breaks or declines in the accumulated trajectory shows that the growth of the field has shown consistency over time, which makes it independent of isolated episodes, so that it has been the product of a progressive expansion of academic interest and editorial diversification.

Likewise, the continuous ascent of the curve anticipates a transition to later stages of the scientific life cycle, an aspect that is in agreement with the projections derived from the logistic model.

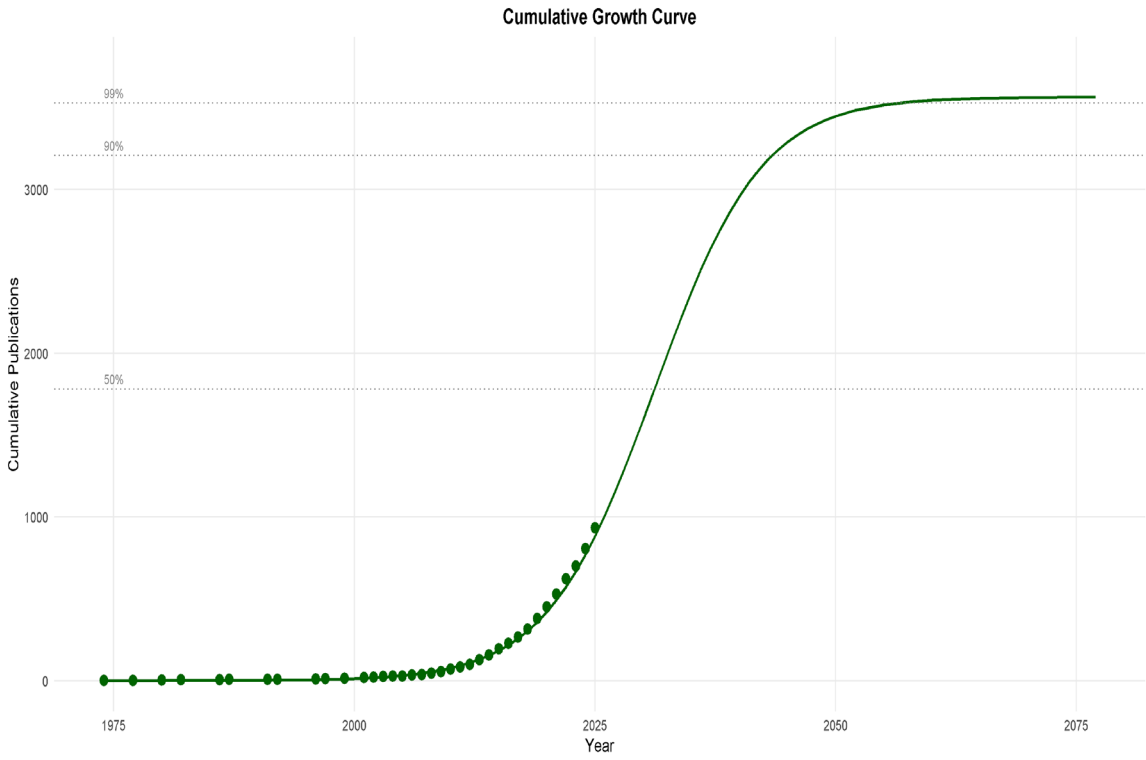

Figure 1.3. Cumulative growth curve of publications (1974-2025)

The temporal behavior of scientific production was modeled by means of a logistic adjustment with the purpose of identifying the functional trajectory of the field and determining its position within the scientific life cycle; therefore, the estimated curve (blue line) describes a characteristic sigmoid pattern, widely documented in processes of academic and technological growth, in which an initial phase of slow expansion is followed by an accelerated increase and later by a tendency to stabilization.

In this sense, this behavior is clearly seen when comparing the values observed through the fitted function, in which its coefficient of determination (R^2 = 0,980) is indicative of a high correspondence between the model and the empirical load contained in the available data.

Thus, the inflection point of the model is estimated around the year 2031, which represents that the model presents an annual growth rate that would reach its maximum value before the beginning of a progressive deceleration; such a projection would be located at approximately 160 annual publications, a figure that would be consistent with the upward slope observed in recent years, consequently the subsequent evolution of the curve is suggestive that after reaching that point, the field would enter a phase of maturity marked by an increasingly gradual growth.

Therefore, the stability of the fit allows us to identify that the recent expansion pattern does not correspond to an irregular or episodic behavior, but rather to a consistent and sustained trend, where the inter-annual variations are in line with the underlying theoretical model.

The shape of the curve also indicates that the field is currently at an advanced stage of the accelerated growth phase, prior to the slowdown typical of maturity, which is congruent with the accumulated progression observed in the period 1974-2025.

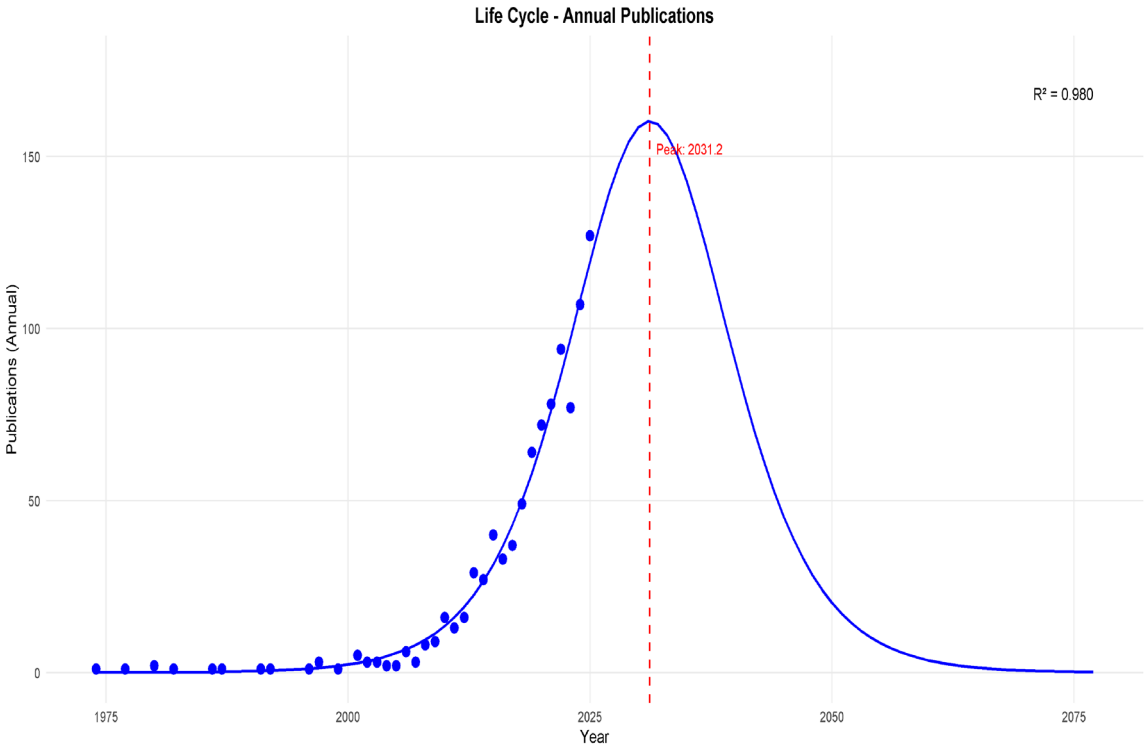

Figure 1.4. Life cycle of the field according to logistic model (Annual Publications)

The temporal evolution of scientific production reveals patterns that cannot be understood solely on the basis of the annual publication series or the cumulative trajectory; therefore, it is necessary to disaggregate the development of the field according to the structural transformations that have marked its consolidation, interruptions and reorientations.

Thus, rather than a linear growth, the chronology of Health Governance shows a succession of differentiated phases, determined by indexing processes, funding cycles, global health shocks, institutional reconfigurations and dynamics of the political economy of knowledge.

In order to systematically represent these transitions, a synthetic table is presented below that organizes the period 1974-2025 into analytical stages, integrating production volume, epistemological drivers, exogenous milestones and consequences on the configuration of the field.

This structure allows us to understand the temporality of the corpus not as a homogeneous continuum, but as a series of inflections that reveal the dependence of the concept on technological, political and metric contingencies.

Table 1.1. Historical phases in the evolution of the concept Health Governance (1974-2025)

Header 1	Header 2	Header 3
Phase 1: Conceptual silence (1974–1999)	Minimum production (≈1 doc/year). Term does not exist in the literature.	Predominance of policy analysis and management approaches; absence of the concept.
Phase 2: Methodological escalation (2000–2015)	Accelerated growth through digitization and indexing.	Entry of the term into MeSH; expansion by metrics and international funding.
Phase 3: Pandemic artificialization (2016–2025)	All-time highs; peaks associated with COVID-19.	Massive relabeling; convergence of global crises and metric requirements.

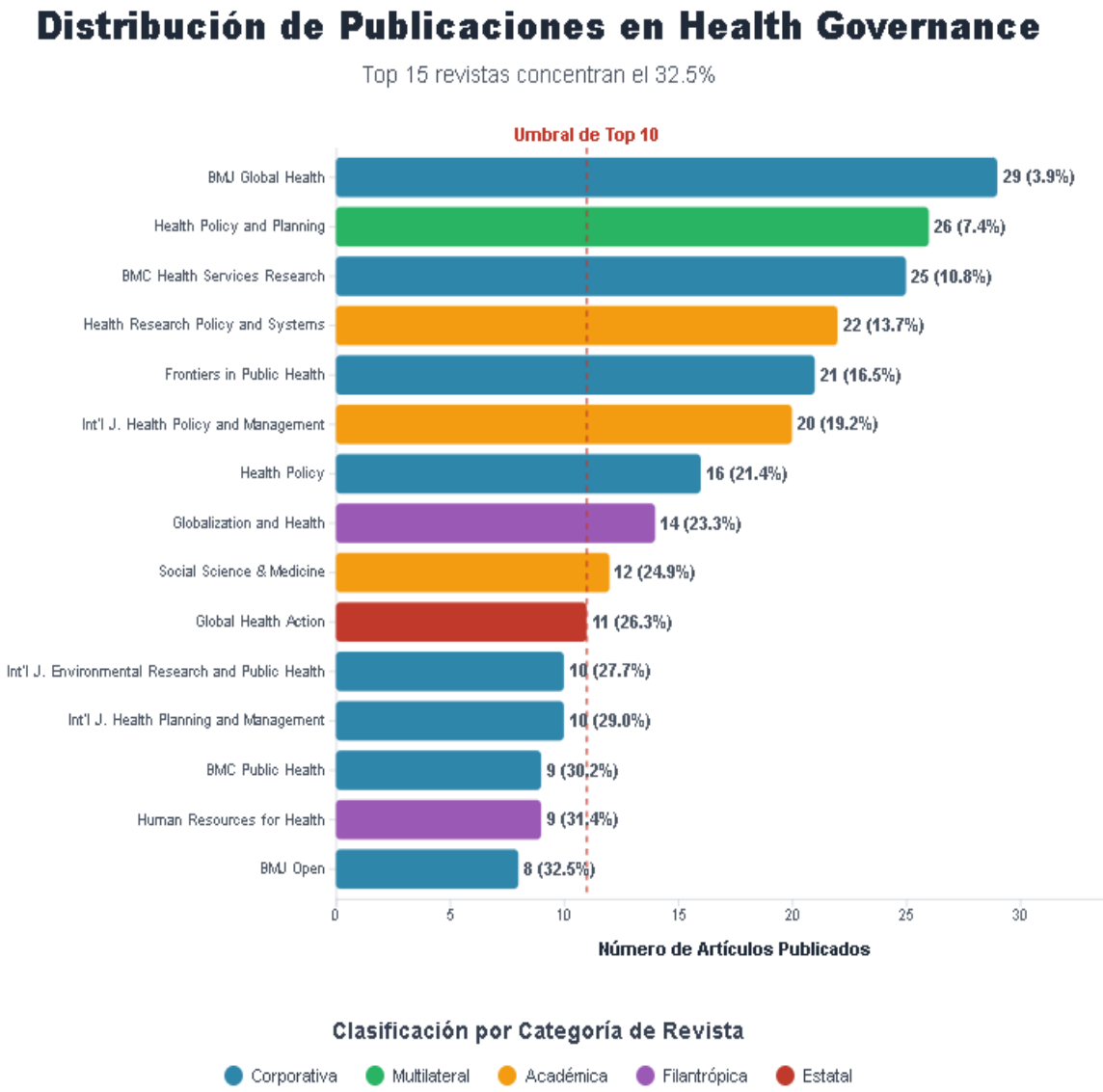

Figure 1.5. Top 10 journals by volume of publications in health governance

The scientific production on governance in health is distributed within a broad set of editorial sources, which total 420 indexed journals, books, series and proceedings, thus, within this set, a pattern of concentration is observed in a reduced number of specialized journals, which gather a significant portion of the corpus. Consequently, the analysis reveals that the ten journals with the highest volume of publications represent 37,1 % of the total number of documents, which indicates that a substantial part of the literature is channeled through defined editorial spaces.

These journals have a thematic orientation that focuses on public health, health systems and health policy, which encompasses regional and global approaches; among them are titles with high international visibility and others with editorial lines focused on health planning, service management or comparative analysis of health systems.

There are also differences in publication models, including open access journals, hybrid journals and publications based on article processing charges, which is indicative of a varied ecosystem in terms of access and dissemination.

In terms of absolute frequency, BMJ Global Health, Health Policy and Planning, BMC Health Services Research and Health Research Policy and Systems are at the top of the list, with between 20 and 29 papers each during the period analyzed; other journals that proved to be relevant with strong contributions included Frontiers in Public Health, International Journal of Health Policy and Management, Health Policy, Globalization and Health, Social Science & Medicine and Global Health Action.

The presence of these sources within the set shows that the literature on health governance is mainly developed in platforms associated with international public health and health policy analysis, thus, the frequency distribution suggests that there are both highly productive journals and a long list of publications with 1 or 2 papers, a phenomenon that reflects the dispersion of the total set of sources.

The coexistence of journals with high and low volumes of production indicates that the field combines consolidated editorial spaces with scattered contributions in specialized, interdisciplinary or regional media.

As a complement to the analysis of editorial sources, it is relevant to examine the types of documents that make up the scientific corpus recovered, since the way in which academic communication is structured offers additional information on the internal organization of the field and the formats through which health governance studies are disseminated. Consequently, this perspective makes it possible to characterize not only where it is published, but also how it is published, which provides a complete view of the documentary architecture of the corpus.

The scientific production analyzed is distributed in multiple types of documents, which reflect the different modalities of academic communication present in the field of health governance; to this effect, the corpus includes articles, reviews, book chapters, conference papers, short notes and editorials, each with specific proportions within the total number of records.

Research articles constitute the predominant documentary type, with a total of 653 documents, equivalent to 70 %, in second place are reviews, with 135 records, corresponding to

14,5 %, on the other hand are book chapters with a total of 57 publications occupying 6,1 %; in a smaller portion are identified conference papers with 28 documents and 3 % and short notes that occupy 2,7 % with 25 documents, while editorials and other formats represent marginal percentages within the total set.

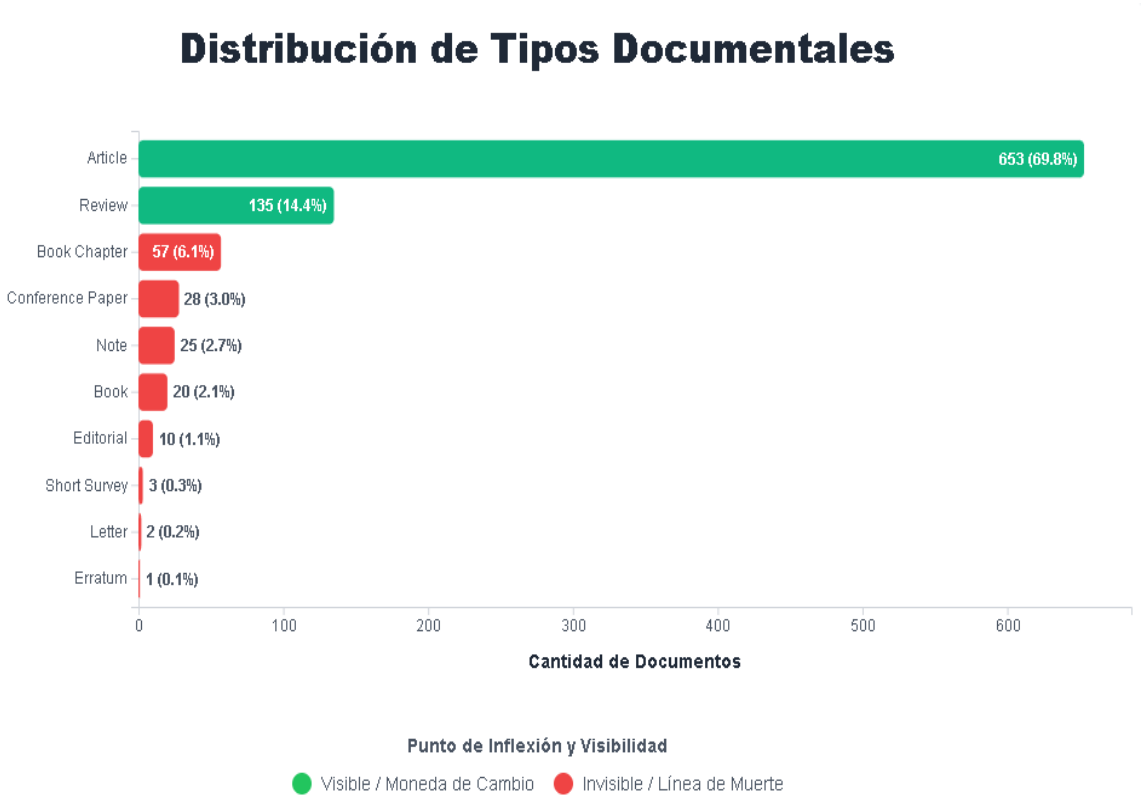

Figure 1.6. Distribution of document types in the literature on health governance

The observed distribution shows a documentary structure dominated by the presence of original articles, accompanied by a relevant volume of reviews and a smaller number of contributions in formats that fulfill complementary functions within scientific communication.

Book chapters and conference papers represent additional modalities of dissemination, while notes and editorials appear in reduced proportions. Together, these figures describe a documentary ecosystem based mainly on scientific articles, with secondary participation of other types of documents.

The scientific production identified shows a wide geographical distribution with contributions from 107 countries, however, there is a significant concentration in a small group of countries, which account for more than half of the total number of documents. The ten countries with the highest volume of publications account for 56,7 % of the corpus, which indicates the existence of particularly active scientific production centers in the field of health governance.

The country with the largest number of documents is the United States, with 235 publications (13 %), followed by the United Kingdom, with 181 records, accounting for 10 %, Canada with 96 documents and 5,3 %, followed closely by Australia with 84 documents and a 4,6 % share of the corpus.

On the other hand, China and Switzerland contribute 61 publications each, corresponding to 3,4 % of the total, while India and South Africa have 56 documents each (3,1 %), followed by Brazil with 51 documents (2,8 %) and Germany with 43 productions (2,4 %), which reflects a group of countries with a consolidated infrastructure in public health research and health systems that have contributed steadily to the development of the field.

Figure 1.7. Ten countries with the highest scientific production in health governance (1794 - 2025)

In addition to the volume of publications, the analysis of international co-authorship makes it possible to describe the existing structure of collaboration between countries, the geographical visualization clearly shows a web of interactions that mainly connects North America, Western Europe, East Asia and Oceania, with multiple lines of cooperation that cross continents.

These connections also include collaborations with middle-income countries in Africa, Latin America and South Asia, which shows that scientific production in health governance is supported by transnational networks with diverse scopes.

Consequently, the map of collaboration shows that the United States and the United Kingdom act as central nodes within the global network, given the number and breadth of the links they

maintain with other regions, while countries such as Canada, Australia, China, South Africa and India also show relevant patterns of collaboration, although with varying degrees of centrality. Such interactions reflect differentiated dynamics within the international scientific space, in which research capabilities, availability of resources and institutional participation in joint projects converge.

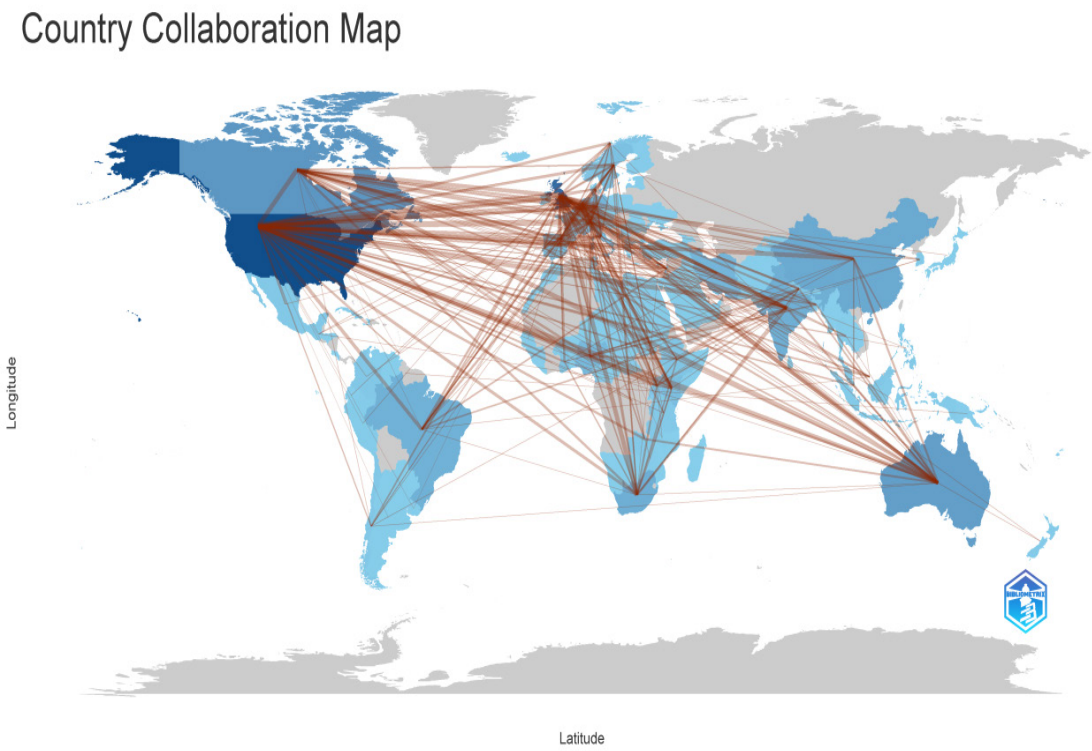

Figure 1.8. Map of international collaboration between countries in the literature on governance in health

Overall, the geographical distribution and patterns of collaboration show a field with a broad international presence and active networks that articulate different countries around the study of governance in health, with the coexistence of regions with a high density of collaboration and others with more specific participation forming a heterogeneous global structure in which widely connected production centers coexist with contributions from different geographical contexts.

On the other hand, it should be noted that the scientific production analyzed comes from a wide range of academic and governmental institutions and international organizations, totaling more than 1 500 unique affiliations, thus, within this framework, a small number of entities concentrate a significant proportion of the documents, which makes it possible to identify the main institutional centers linked to research in health governance.

The analysis shows that the institutions with the highest level of productivity correspond mostly to universities and specialized centers located in North America, Europe and Oceania, accompanied by multilateral organizations with a presence in various other regions.

The London School of Hygiene & Tropical Medicine, together with the World Health Organization, the University of Toronto, the University of Toronto, the University of Oxford, the University of Cape Town, Johns Hopkins University, Harvard University and the University of Melbourne, all of which have had a sustained participation throughout the period studied, stand out among the institutions with the highest productivity and volume of publications.

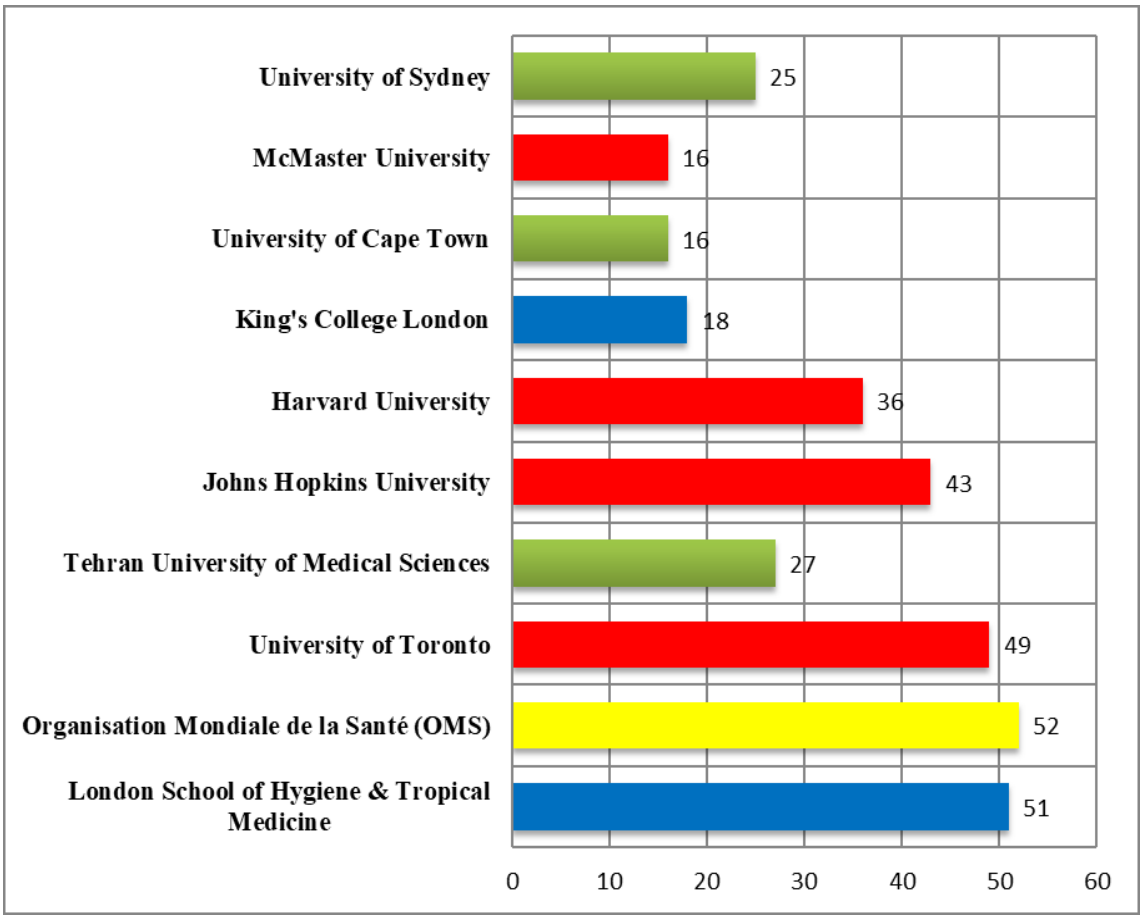

Figure 1.9. Institutions with the highest scientific production in health governance (1974-2025)

The institutional group analyzed also includes organizations that present a lower volume of publications, actively participate in academic networks or joint projects; some of these entities correspond to specialized public health centers, research institutes with a regional focus and universities of national scope that contribute in a timely manner with comparative studies or analysis of health policies.

As a whole, the institutional distribution shows the coexistence of high productivity centers with institutions of lower relative participation, which configures a heterogeneous and broad panorama where actors with different levels of specialization, research infrastructure and historical presence in the field converge.

Based on the institutional characterization described above, it is pertinent to complement the general vision of the corpus by examining other structural components that allow a

comprehensive description of the scientific production analyzed. Thus, in this line, the identification of authors with greater presence, the declared funding agencies, the keywords used, the collaboration networks and the co-citation patterns provide additional information on the internal organization of the field.

The authorship analysis included a total of 3 988 researchers, with an average of 4,78 co-authors per document, within this group stand out authors with a sustained trajectory in the scientific production on health governance, such as Abimbola S, Gilson L, Greer SL, McKee M, Lehmann U and Takian A, who are recurrent among the documents recovered throughout the study period, thus, the graph shows the chronology of publication and the annual impact of these authors, which allows us to observe the continuity and concentration of their scientific activity.

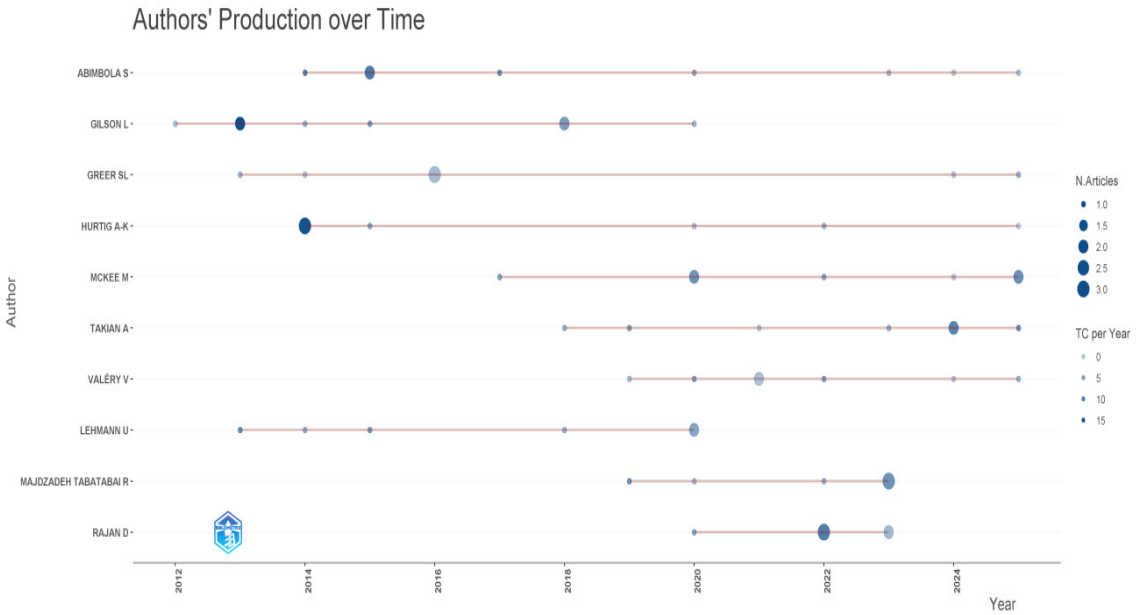

Figure 1.10. Annual production and impact of the most relevant authors in health governance

The corpus also includes explicit references to funding organizations, including multilateral institutions, government agencies and private foundations; the most frequent funders include the World Health Organization (WHO), the European Commission, the National Institutes of Health (NIH) and the Bill & Melinda Gates Foundation, along with other organizations with a specific presence. In this sense, the mentions identified are a reflection of the diversity of entities that support work related to health policies, health systems and governance processes.

In addition to the above, the incorporation of 2 312 keywords assigned by the authors constitutes a broad basis for the terminological description of the field. Thus, the most frequent keywords include human (593 occurrences), humans (459), article (323), health care policy (262), health policy (210), health care delivery (207) and public health (198), among others.

Figure 1.11. Main funders reported in the literature analyzed

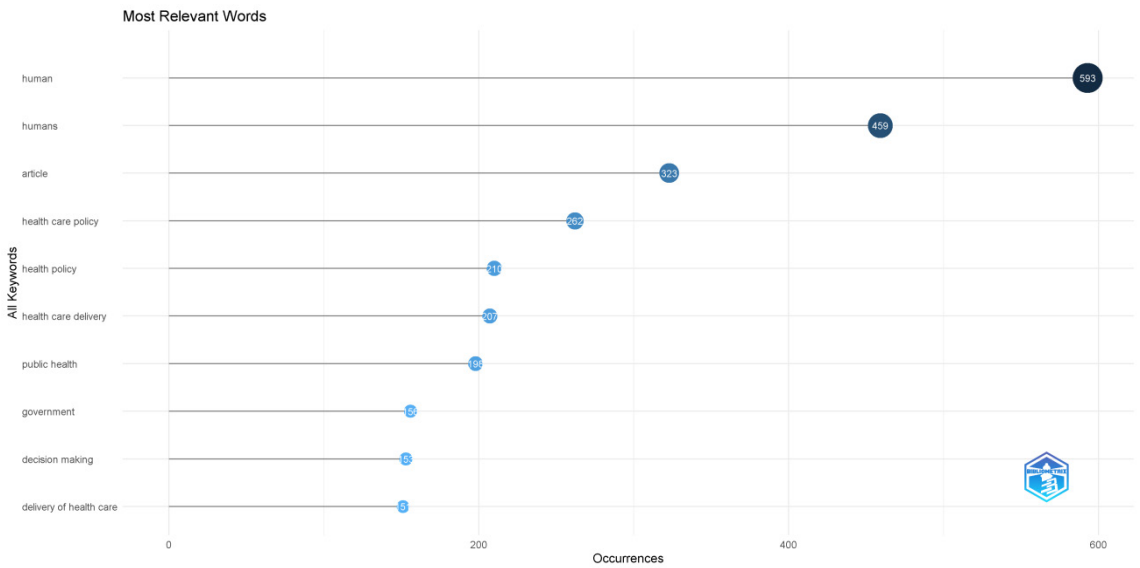

Figure 1.12. Most frequent keywords in the analyzed set

On the other hand, the analysis of co-authorship made it possible to identify the relational structure among the authors who contribute to the literature on governance in health, thus the network obtained evidences a set of clusters organized around researchers who present a greater recurrence in collaborative work, forming scientific communities articulated around shared lines of research.

The visualization below shows consolidated groupings headed by authors such as Abimbola S, Gilson L, McKee M, Takian A, Valéry V and Rajan D, who present a higher number of connections within their respective clusters, consequently smaller groups are composed of authors with punctual participation in specific collaborations.

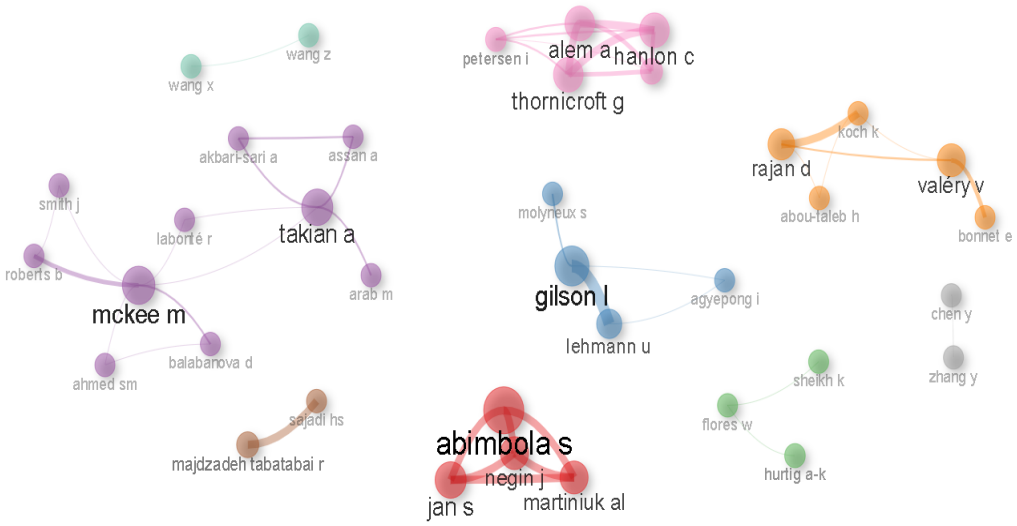

Figure 1.13. Network of collaboration between authors in the literature analyzed

The co-citation analysis allowed us to identify the existing links between the journals that appear jointly cited within the corpus, which offers an approximation to the conceptual structure that supports the literature on governance in health, consequently, the resulting visualization shows a set of clearly differentiated clusters, formed by journals that have been cited simultaneously in multiple documents, such co-occurrence reflects thematic affinities and intellectual proximity between the sources, which allows us to delineate the bibliographic cores that organize the field.

In the network, there is a central cluster highlighted by the presence of The Lancet accompanied by journals such as BMJ Global Health, BMC Public Health, Social Science & Medicine and the Bulletin of the World Health Organization, which form a closely interrelated group within the field of global health and public health.

Another relevant cluster is composed of journals related to the analysis of health policies and health systems, including Health Policy and Planning, Health Research Policy and Systems, Health Policy, Implementation Science and PLOS Medicine, as well as clusters associated with high impact clinical journals such as The New England Journal of Medicine, JAMA and Annals of

Internal Medicine.

Likewise, clusters associated with high impact clinical journals such as The New England Journal of Medicine, JAMA and Annals of Internal Medicine are identified, which present shared links with publications related to public health and health policy.

Overall, this co-citation structure allows us to visualize how different disciplinary areas are articulated within the field of health governance, the presence of links between clusters and the variable density of connections provide information on the configuration of the bibliographic network that supports the published research, complementing the findings derived from the thematic sections and collaboration between authors.

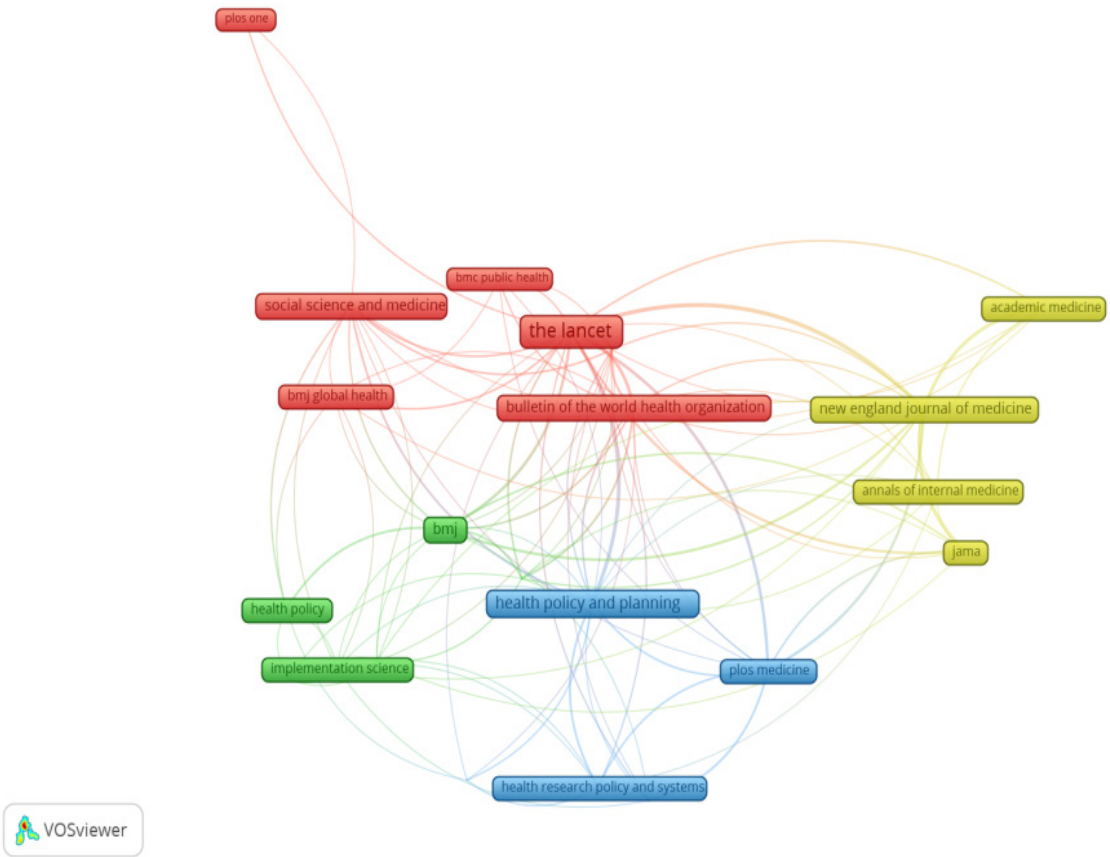

Figure 1.14. Journal co-citation network in the health governance literature

The spectroscopy analysis of the year of publication of the references (RPYS) made it possible to examine the temporal evolution of the works cited within the corpus and to identify the years in which recurrent references were concentrated; thus, the black curve indicates the number of references cited per year, while the red curve shows the deviation from the five-year moving median, which makes it easier to recognize anomalous increases or peaks of citation.

Within this framework, during the first decades of 1920-1970 the presence of references

maintained a low and stable permanence with periods of minimal variation between years, different from the case experienced during the 1990s in which a sustained increase in the volume of referenced citations was observed, a fact that coincides in time with the international expansion of studies in health policy, health system reforms and the advancement of the global health agenda.

At this point, it should be noted that, starting in the 2000s, the curve shows a consistent upward trend that intensifies with particular notoriety after 2010, an event that is accompanied by peaks in the deviation line, reflecting years with exceptionally frequent citations.

In the most recent phase of 2015-2021 the highest values of the entire period analyzed are recorded; the graph shows a particularly pronounced increase between 2020 and 2021 coinciding with the initial stage of the COVID-19 pandemic,(31) a period in which scientific production on health systems, institutional coordination, response capacity, health resilience and governance experienced a significant increase in several areas.

However, the high concentration of references during these years suggests an intensive use of the literature published during that period, which is consistent with the global context of the health emergency; according to the overall approach, the spectroscopy analysis of the year of publication of the references shows a progressive accumulation of cited literature, as well as peaks that indicate periods in which certain contributions were used in a particularly recurrent manner within the corpus, which allows a clear temporal representation of the documentary support used in the development of the field.

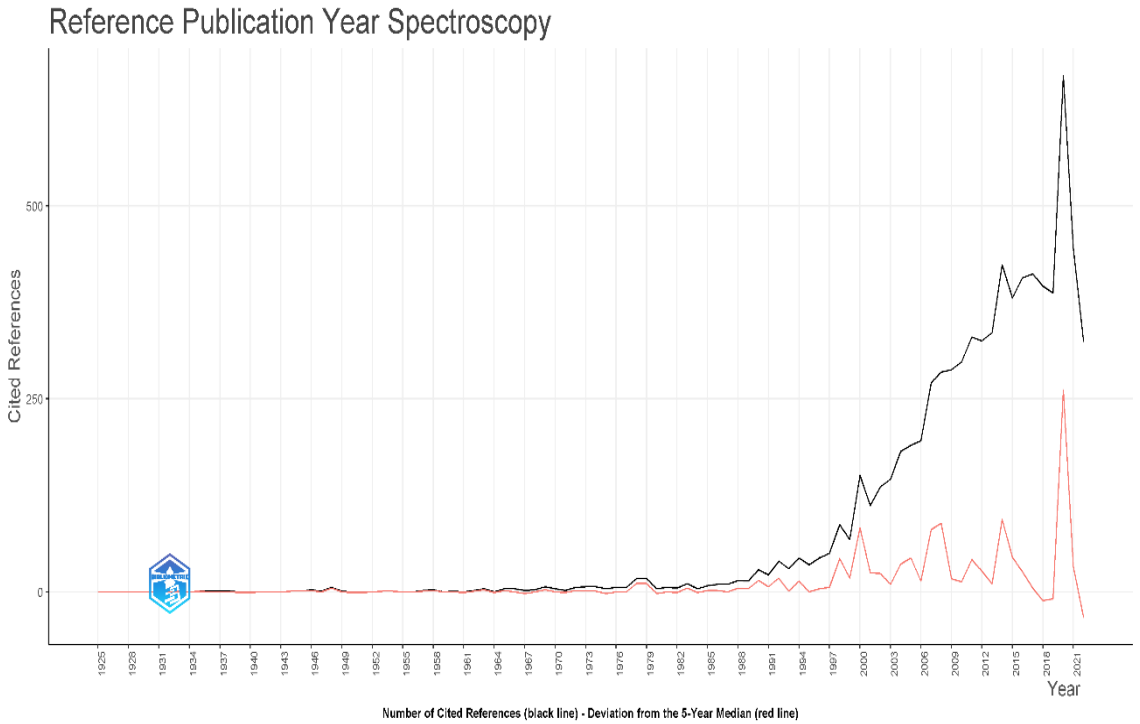

Figure 1.15. Spectroscopy of the year of publication of the references

DISCUSSION

The results of this study allow us to understand that health governance has not evolved as a cumulative and neutral field, but as a space deeply marked by logical structures of cognitive power, international funding dynamics and editorial patterns that condition what is researched, how it is researched and which perspectives are to be consolidated as a reference.

Thus, from a critical bibliometric approach, the plane that can be glimpsed reveals a growing maturity of the field, although this does not hide the structural limitations that are configured in its development, therefore, in the first place, the structure that can be observed confirms the presence of consolidated epistemic centers in which Anglo-Saxon institutions together with multilateral organizations act as nodes that define analytical categories, dominant languages and methodological standards.

In this perspective, the concentration is consistent with the criteria of global architecture of cognitive authority, a category that intensified after the 2019 pandemic, seen in this way, this period brought the global north to play a disproportionate role in the conceptual formulation of the field; hence for a bibliometric perspective, this reality organizes patterns of citation and collaboration while in turn delimiting the possibilities for conceptual innovation from historically underrepresented regions;[32] consequently the field has expanded, but this is not indicative that it has democratized.

Secondly, the patterns identified show that governance in health is strongly influenced by the political economy of scientific funding; hence, the correspondence between the main funders and the emerging topics is indicative that the agenda of the field responds, at least in part, to institutional priorities that seek to generate globally applicable comparative models.[33]

From a critical point of view, this generates a notable risk,[34] that health governance becomes less an interpretative framework and more an operationalized standardization device, where certain methodologies are privileged over qualitative, participatory or community approaches that could be a source of input that deepens the contextual environment and territorial sensitivity.

A third dimension is that which comprises the reactive temporality of the field, in which the chronology reveals its recent expansion, although being a minor result it denotes that it is not an organic process of theoretical maturation, but is more consistent with the consequences of a global shock which forces the reconfiguration of language and categories.

It is thus suggested that during the COVID-19 pandemic, this trend was intensified,[35] in which governance became the most commonly used category for the interpretation of coordination failures, institutional tensions and transparency deficits.

This adaptive use of the concept explains the marked bibliographic acceleration, however, this dynamic poses challenges,[36] the risk of governance being used as a broad semantic container without a sufficiently precise conceptual basis which in turn dilutes its analytical capacity.

Bibliometrics, however, not only allows for the identification of patterns, since its critical function is to identify development niches, structural gaps and insufficiently explored lines of research.

From a critical bibliometric perspective, the findings not only make it possible to note patterns of concentration and expansion, but also to identify niches where the field can be strengthened. In this context, four lines of development emerge, the first of which is oriented towards a greater incorporation of perspectives from the global South as a conceptual framework.

A deeper use of qualitative and ethnographic approaches to understand governance as a situated practice; as well as, the visibilization of territorial and community experiences that are scarcely indexed; and finally, studies that critically examine how the international funding architecture shapes dominant agendas, methodologies and vocabularies.

At the same time, the integration in a single reading of journals, institutions, countries, collaborative networks, funding and intellectual bases constitutes a substantive contribution of the study, since it allows visualizing governance in health as a complex relational web where thematic expansion and structural concentration coexist in tension.

Thus, the recognition of these tensions does not weaken the field; on the contrary, it points out the spaces where greater epistemic plurality, conceptual precision and methodological openness are required in order to advance towards more inclusive governance models that are sensitive to institutional heterogeneity.[37]

However, this analysis has limitations inherent to bibliometric studies based on a single database, where consequently the exclusive use of Scopus, despite guaranteeing homogeneity, excludes regional literature, not indexed or published in different languages, which generates an under-representation of perspectives from the global South[38] and of qualitative approaches.

Additionally, the normalization of names and affiliations depends on the consistency of the original metadata and the temporality captured reflects the year of publication and not necessarily the year of research or decision making, thus the logistic model allows describing aggregate trends but does not anticipate future disruptive events.[39]

Similarly, this study does not incorporate qualitative content analysis or systemic evaluation of the conceptual frameworks used by the authors, an aspect that could be further explored in subsequent research.

However, despite these limitations, the study offers a solid structural vision of the field; governance in health is configured by the interaction between cognitive power dynamics, editorial structures, institutional incentives and global crisis cycles; consequently, the evidence shows a field of expansion but conditioned by high levels of concentration in scientific production, financing and conceptual influence.

In relation to this issue, the results suggest that the future of the field will be strongly dependent on its ability to balance technical efficiency criteria with contextual depth, comparative rigor with epistemological openness and finally methodological standardization with recognition of territorial diversity.[40]

CONCLUSIONS

This study shows that health governance does not evolve as a linear or neutral field, but as a space that is shaped by power structures, by financing logics in the company of editorial dynamics, which condition what knowledge is produced and what must be legitimized.

Bibliometric mapping reveals a field in constant expansion, albeit with a marked concentration which limits its internal democratization while at the same time restricting the diversity of conceptual frameworks available.

At the same time, the recent acceleration linked to the pandemic confirms that governance as a category operates as an adaptive language that takes shape in crisis contexts, although its semantic breadth may weaken its analytical capacity if it is not accompanied by greater conceptual precision.

The central contribution of this work lies in offering an integrated structural vision, which allows the understanding of governance in health as a complex relational web, in which thematic expansion and epistemic concentration coexist in constant tension; such a perspective not only highlights gaps and asymmetries, but also illuminates strategic areas for its strengthening, especially the need to integrate conceptual frameworks from the global South, critical analyses of financing as a force that shapes the priorities of the field.

Looking to the future, the vitality of the field depends on its ability to balance technical rigor with epistemological plurality, international comparability with territorial sensitivity, and methodological standardization with recognition of institutional diversity. Consequently, progress in this direction will consolidate a more legitimate, more critical health governance that is better prepared to respond to the structural and emerging challenges of contemporary health systems.

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