



## Mapping the Cost of Illness Publications in Five Decades: A Bibliometric Analysis and Publications Landscape

Elli Yılda Hastalık Maliyeti Yayınlarının Haritalandırılması: Bibliyometrik Analiz ve Yayınların Görünümü

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### ABSTRACT

The study aims to map the "cost-of-illness" publications over five decades, identify research areas and conduct a bibliometric analysis of publications on the cost of illness. Study data was obtained from Web of Science database in April 2024. The basic information such as the number of citations, and yearly distribution of publications was extracted with Microsoft Excel, and the VOSviewer version 1.6.15 software program was used for maps. The publications were published between 1975 and 2024; total 879 publications were published from 2015 to 2024 April. A total of 7601 authors have contributed to advancing the literature on cost of illness. A total of 36369 citations have been cited by authors; 2022 was most cited year with 3032 citations; Boncz I. is the prominent author based on publications and total link strength and Leigh, JP is the most cited author; followed by Sebestyen, A. and Koenig, H.H. The top 10 publications have a total of 5352 citations. There has been significant increase in publications and citations related to the cost of the disease in the last five decades. Understanding the context of these publications is essential for researchers who want to work in this field.

### MAKALE BİLGİSİ

#### Makale Türü

Araştırma Makalesi

#### Anahtar Kelimeler

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Görsel Haritalama

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### ÖZ

Araştırmanın amacı, elli yılda "hastalık maliyeti" yayınlarının haritasını çıkarmak, araştırma alanlarını belirlemek ve hastalık maliyeti yayınlarının bibliyometrik analizini yapmaktır. Veriler Nisan 2024'te Web of Science veri tabanından elde edilmiştir. Yayınların atıf sayısı, yıllara göre dağılımı gibi temel bilgiler Microsoft Excel ile çıkarılmış; haritalar VOSviewer sürüm 1.6.15 yazılım programı kullanılmıştır. Yayınlar 1975-2024 yılları arasında yayımlanmıştır; 2015-2024 Nisan tarihleri arasında toplam 879 yayın olduğu görülmüştür. Toplam 7601 yazar hastalık maliyetine ilişkin literatürün gelişmesine katkıda bulunmuştur. Yazarlar tarafından bu yayınlara toplam 36369 atıf yapılmıştır; 2022 yılı 3032 atıfı en çok atıf yapılan yıl olmuştur; Boncz I. yayınlara ve toplam bağlantı gücüne göre öne çıkan yazardır; Leigh, JP en çok atıf yapılan yazardır; onu Sebestyen, A. ve Koenig, H.H. takip etmektedir. İlk 10 yayın toplam 5352 atıf almıştır. Son elli yılda hastalığın maliyeti yayınlarında ve atıflarda önemli bir artış olduğu açıktır. Bu yayınların bağlamını anlamak, bu alanda çalışmak isteyen araştırmacılar için önemlidir.

## 1. Introduction

Cost-of-illness (COI) studies represent a valuable tool for comprehensively assessing the economic impact of a specific disease across various perspectives. These investigations delve beyond mere healthcare expenses, encompassing a broader spectrum of costs incurred by society. By examining both medical and non-medical expenditures, COI studies offer crucial insights into the significance of a health issue, dissecting its cost components and structures. Consequently, they provide essential estimates for conducting thorough economic evaluations, which in turn facilitate

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informed decision-making in healthcare resource allocation and policy formulation (Drummond et al., 2005). Economic evaluation studies provide into informing healthcare policy, health technology assessment, and financial decision-making. As the practice of health technology assessment becomes increasingly prevalent worldwide, there is a growing demand for dependable, country-specific, and contextually relevant COI studies. These studies are of the utmost importance for providing precise insights into the economic burden of diseases within specific regions. They assist policymakers and stakeholders in crafting tailored strategies for resource allocation and healthcare management (Boncz & Sebestyén, 2006; Feig et al., 2018).

The process of scientific publication has undergone significant evolution in recent years. Publications represent the primary output of scientific research and the most widely used method of disseminating scientific discoveries to other researchers. The advent of electronic journals has facilitated easy access to periodical journals, substantially increasing the number of publications (Karahana & Aslan, 2020). In an academic area where publications are abundant, the individual scientific contribution of the journals is appraised by the number of qualified publications. The quality of a journal is determined by three key factors: the number of articles published, the h-index, and the number of citations per article (Xu & Zhang, 2005). These determinants are essential in many countries for academic recognition and promotion. It is known that qualified publications are essential for the expansion and advancement of academic knowledge (Lewis & Pizam, 1986; Man et al., 2004). There is also a tendency to monitor the performances of the authors and the academic departments by assessing the quality of the publications they produce in a performance-oriented academic working environment. Citation analysis is a method of making this assessment since the best indication of scientific contribution is the number of high-rank citations rather than the total number of citations (Onat, 2011). The analysis of the impact of the number of citations for scientific publications was proposed in 1955 for the first time, and then, in 1963, the Science Citation Index was published by the Institute for Scientific Information. Since then, citation analysis has been performed to assess the performance of publications, academic departments, research laboratories and institutes (Bornmann & Daniel, 2008). Citation analysis, citation report, and citation order specific to a particular specialty are commonly used methods in the literature (Namdari et al., 2012). This study aims to map the terrain of "cost-of-illness" publications fifty years identify research areas and conduct a bibliometric analysis of publications on the cost of illness. This will provide valuable scientific information for researchers in this field.

## 2. Literature Review

Cost of illness (COI) studies describe the total value of resources utilized or lost due to a health condition. These studies capture the direct costs within the healthcare sector, the economic impact of reduced or lost productivity (indirect costs), and the costs related to pain and suffering (intangible costs) (Hex et al., 2024). Direct healthcare costs include expenditures such as hospitalizations, medications, emergency transportation, and medical services. In addition, patients and their families often incur out-of-pocket expenses not covered by insurance. These expenses may include hospital care, medical consultations, prescriptions, transportation for medical appointments, travel costs for family members visiting hospitalized patients, and caregiving costs at home (Bartsch et al., 2020; Gulamhussein et al., 2023). Additionally, incorporating indirect costs related to lost productivity into these analyses highlights the importance of preventive measures and effective treatment strategies, which could ultimately alleviate not only personal suffering but also societal economic strains. Therefore, integrating comprehensive cost assessments into public health planning is essential for crafting policies that address both immediate healthcare needs and long-term economic sustainability (Bellettini & García-Marín, 2022)

Moreover, fostering collaboration between healthcare providers, policymakers, and community organizations can enhance the implementation of these strategies, ensuring that interventions are tailored to the specific needs of populations most at risk (Ibáñez & Rodés-Cabau,

2019). This collaborative approach can lead to more innovative solutions and a greater impact on health outcomes, ultimately creating a more resilient healthcare system that is better equipped to handle future challenges. Additionally, investing in preventive care and education can empower individuals to take charge of their health, reducing the burden on healthcare systems and promoting a culture of wellness within communities (Tam, 2018).

Indirect COI arises from reduced or lost productivity, which can occur due to illness, premature death, treatment side effects, or time spent receiving care (Mattingly II & Weathers, 2022; Schnitzler et al., 2021). These losses extend beyond the patient to family members who may reduce or stop working to provide care. Additionally, premature death results in indirect costs through the loss of potential earnings and employment benefits. The broader economic impact of these factors underscores the importance of COI studies in assessing the full financial burden of illness on both individuals and society (Hanly et al., 2022; Krol et al., 2013). COI studies are critical tools in healthcare evaluation, offering valuable insights into the economic burden diseases impose on society. By measuring and comparing these burdens, COI studies help healthcare decision-makers formulate and prioritize policies and interventions (Onukwugha et al., 2016) that effectively allocate resources and improve patient outcomes. Furthermore, these studies enable stakeholders to understand the long-term implications of health conditions, guiding investments in prevention and treatment strategies (Mattingly II & Weathers, 2022). COI studies are a widely utilized form of economic evaluation, particularly prevalent in medical literature and specialized clinical journals. Their primary aim is to identify and quantify all costs associated with a specific disease, including direct, indirect, and intangible costs (Mejia et al., 2020). The results, expressed in monetary terms, provide an estimate of the total societal burden of a disease. COI studies are considered valuable sources of information for informing policy decisions, and organizations such as the World Bank and the World Health Organization frequently rely on these studies in their assessments (Byford, 2000).

Two principal methodologies are used to estimate COI: the prevalence approach and the incidence approach. The more commonly employed prevalence approach estimates the total cost of a disease within a specific year. In contrast, the incidence approach, which requires more comprehensive data, calculates the lifetime costs of cases diagnosed in a particular year, offering a benchmark for evaluating new interventions (Arnold, 2020; Onukwugha et al., 2016). Both methodologies have their respective strengths and limitations, thus the choice between them is dependent on the specific research question and available data. Furthermore, the prevalence approach is often preferred for its simplicity and ease of data collection, whereas the incidence approach provides a more detailed understanding of long-term economic impacts, particularly in chronic diseases (Kim et al., 2022). COI studies provide several key insights. Firstly, they reveal how much society spends on a particular disease, offering an estimate of potential savings if the disease were eradicated. Secondly, they break down costs by component and identify the contribution of various societal sectors. This information is crucial for identifying research and funding priorities by highlighting areas of potential inefficiency where cost savings could be achieved (Gerkens et al., 2008).

Some studies have attempted COI and economic evaluation studies global perspective via bibliometric analysis and systematic review (Barbu, 2023; Bozdemir & Taşlı, 2018; Hernandez-Villafuerte et al., 2016; Pitt et al., 2016; Wang et al., 2018); some studies have focused on disease of costs (Afroz et al., 2018; Al-Kindi et al., 2015; García-Pérez et al., 2021; Li et al., 2023; Ng et al., 2014; You et al., 2022). This study is distinguished from previous studies by offering a more comprehensive and integrated analysis of the cost-of-illness (COI) literature by combining bibliometric methodology. Although previous studies have approached the cost of illness (COI) and economic evaluation from a global perspective using bibliometric analysis, this study builds on

these efforts by identifying trends in COI research and examining its broader evolution over five decades. Furthermore, some studies concentrate on the bibliometric analysis of diseases. This study, however, adopts a more comprehensive approach, encompassing a wider range of diseases and providing a more expansive view of COI research. By integrating bibliometric data with a literature review, this study offers a deeper understanding of the COI field, including key contributors, emerging trends, and gaps in the literature. This study can be positioned to guide future research efforts. From this perspective, the study aims to provide a comprehensive and overarching picture of the extant literature on COI by bibliometric methodology in five decades. More specifically, the two research questions (REQ) were set within the study:

**REQ1.** What is the status quo of research on COI in five decades?

**REQ2.** What are the countries, organizations, journals and author keywords, diseases that emerged from the publications on COI in five decades?

REQ1 was addressed through bibliographic coupling, and citation analysis to objectively examine and organize the publications on COI. For REQ2, bibliometric analysis was conducted through bibliographic coupling of the documents within the publications and from the clusters obtained from the publications to map the emergent themes in the COI literature.

### 3. Materials and Methods

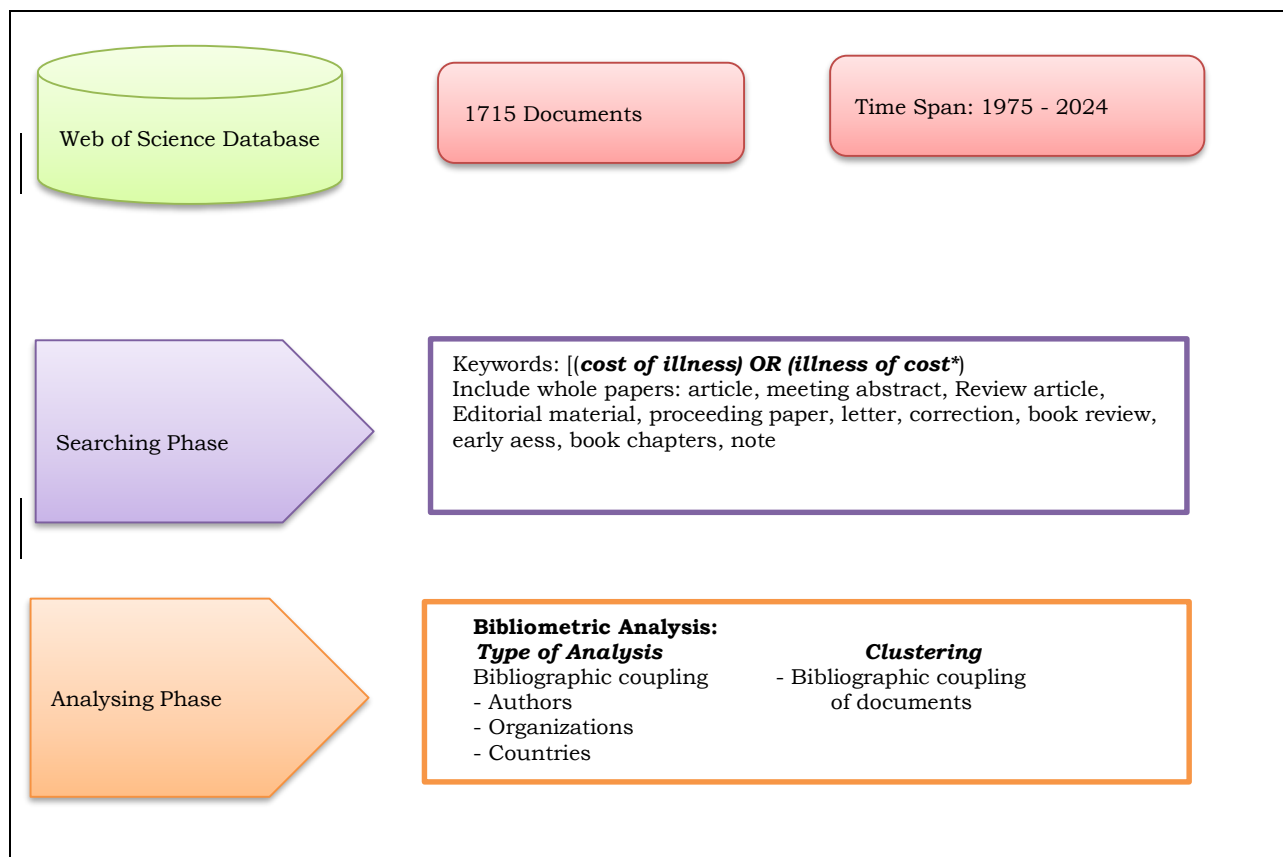
**Instruments:** The data were collected in the Thomson Reuters Web of Science (WoS) citation indexing database using the search terms: “[*cost of illness OR illness of cost*]

**Data Collection:** The data search was conducted in a single day on April 25, 2024, to avoid changes in citation counts as much as possible. Research, compilation, and proceeding paper-type publications were included. All publications were ordered by citation count; the author read and evaluated each publication's title and summary between 1975-2024.

**Data Analysis:** Selected publications were evaluated according to the following parameters: top ten authors, countries, organizations, journals and author keywords (See Flowchart of Study). Microsoft Excel program was used for yearly distribution of the publications, yearly distribution of citations graphics and VOSviewer version 1.6.15 software (Leiden University, Leiden, The Netherlands) was used for maps, keyword, and cluster visualizations.

In the network visualization, individual circles were used to represent keywords, with their respective sizes reflecting the frequency of occurrence. Larger circles indicated a higher frequency. The color of the circles indicated the existence of keyword clusters, which aided in the identification of thematic groups. The lines connecting the circles represented the relationships between the keywords, with the length of the lines indicating the strength of the association. The overlay visualization depicted the evolution of circle colors over time, thereby offering insights into the temporal trends of keywords (Cao et al., 2021).

Figure 1: Flowchart of Study



#### 4. Results

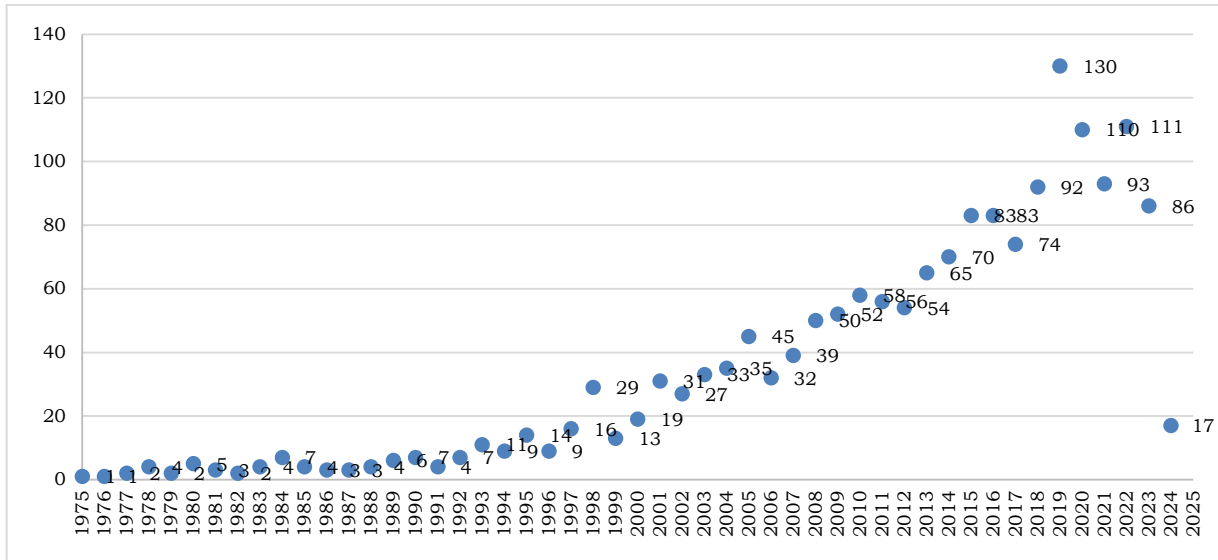
The initial search returned 1715 publications. The yearly distribution of the publications is presented in Table 1. The publications on the cost of illness studies were published between 1975 and 2024; a total 879 publications were published from 2015 to the present.

**Table 1: Total Number of Publication in Five Decades**

Years	Publication Number	%
1975-1984	31	1.80
1985-1994	58	3.38
1995-2004	191	11.13
2005-2014	556	32.42
2015-2024	879	51.25
<b>Total</b>	<b>1715</b>	<b>100.00</b>

The Graphic 1 shows the yearly distribution of publications. Between 1975 and April 26, 2024, a total of 7601 authors worldwide have contributed to advancing the literature on the cost of illness. There has been an upsurge in academia's interest in this field, after the 2000s; 19, 58, and 110 articles were published on the cost of illness in 2000, 2010, and 2020 respectively. The most productive year was 2019 with 130 publications.

Graphic 1. Yearly Distribution Of The Publications in Five Decades



Graphic 2 shows the yearly distribution of citations. Between 1975 and April 26, 2024, 36369 citations have been cited by authors; 2022 was the most cited year with 3032 citations, there were fewer than 10 citations between 1975 and 1978.

Graphic 2: Yearly Distribution of Citations in Five Decades

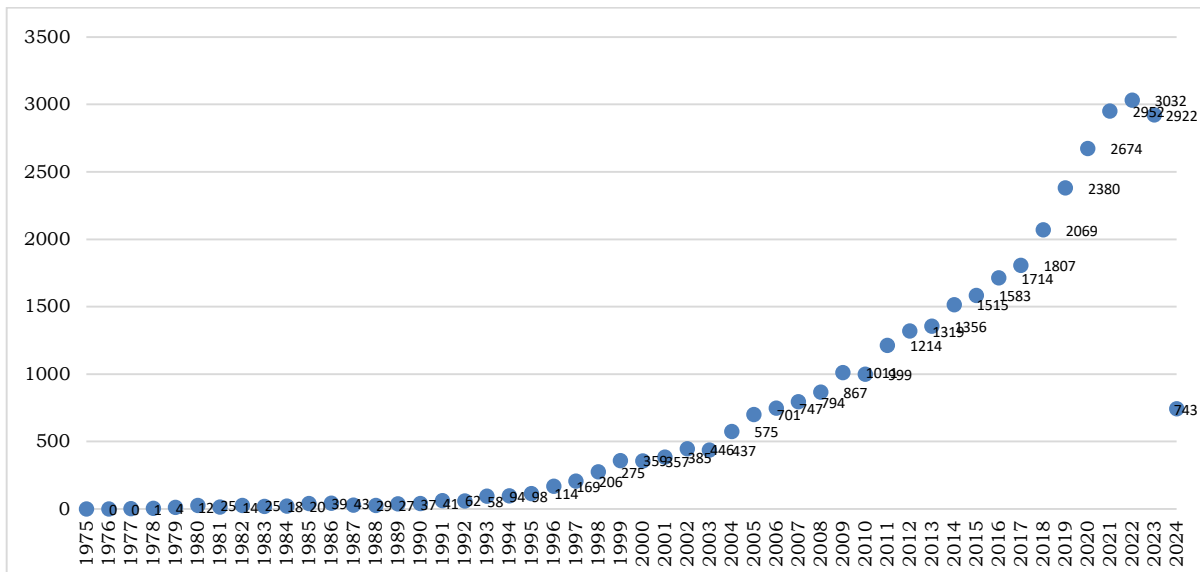


Table 2 shows based on number of diseases publications. Mental disorders are the category that has been the subject of the greatest number of studies, with 185 studies conducted to date. Cancer is the subject of 71 studies and Diabetes Mellitus is the subject of 58 studies, while Multiple Sclerosis and Chronic Illness have each been the focus of 30 studies. These areas of interest indicate substantial economic considerations. Hypertension is the subject of 24 studies, while infectious diseases are the focus of 20 studies. Diseases such as stroke and heart disease, each with 17 studies, and influenza, with 16 studies, also reflect periodic economic burdens, particularly during severe outbreaks. Depression, Parkinson's disease, and cardiovascular diseases are the subjects of 12 and 11 studies, respectively.

**Table 2: Based On Number of Diseases Publications**

Diseases	Number
Mental Disorders	185
Cancer	71
Diabetes Mellitus	58
Multiple Sclerosis	30
Chronic Illness	25
Hypertension	24
Infection Diseases	20
Stroke	17
Heart Diseases	17
Influenza	16
Depression	12
Parkinson	11
Cardiovascular Diseases	11

#### 4.1. Data Analysis

VOS viewer version 1.6.15 software (Leiden University, Leiden, The Netherlands) was used to be pertinent for analyzing bibliometric data. Bibliographic coupling, authors, organizations, citations, co-authorship and co-occurrence, authors' keywords and the top ten most cited papers were undertaken in VOS viewer through fractional counting of bibliometric links.

##### 4.1.1 Bibliographic Coupling

Bibliographic coupling is a 'backward citation chaining' method that identifies and pairs two publications that commonly cite the third document. This is because the higher occurrences of mutual references dive into the higher probability of shared intellectual capital (Khanra et al., 2021).

Table 3 shows the most influential top ten authors in five decades which have rigorously contributed to the cost of illness literature. Boncz I. is the prominent author based on publications and total link strength and Leigh, JP is the most cited author; followed by Sebestyen, A. and Koenig, H.H.

**Table 3. Top Ten Authors**

Based On Number of Publications		Bibliographic Coupling			
Authors	Publications	Authors	Total Link Strength	Authors	Citation
Boncz, I	45	Boncz, I	153	Leigh, JP	606
Sebestyen, A.	30	Sebestyen, A.	131	Koenig, H.H	486
Endrei, D.	28	Endrei, D.	129	Knapp, M	335
Gazso, T.	28	Gazso, T.	129	Berger, K	256
Hasegawa, T.	17	Molics, B.	85	Dodel, Richard	237
Matsumoto, K.	17	Hasegawa, T.	64	Konnopka, A.	230
Molics, B.	16	Matsumoto, K.	64	Gyllensten, H.	204
Seto, Kanako	14	Seto, K.	59	Winter, Y.	189
Augustin, M.	12	Acs, P.	52	Alexanderson, K.	177
Oberfrank, F.	12	Vajda, R.	48	Friberg, E.	177

Table 4 shows the most cited top ten publications in five decades which have rigorously contributed to the cost of illness literature. It has been a total of 36369 citations and average number of citations per item was 21.21 and the h-index was 87. Dagenais et al., 2008 study was the most cited study in cost of illness literature from the United States of America (USA). It has been a total of 36369 citations and average number of citations per item was 21.21 and the h-index was 87. The top 10 publications have a total of 5352 citations; it was 14.71% (5352/36369) of total citations.

Table 4. Top Ten Publications

Publications	Authors	Citations
1-A systematic review of low back pain cost of illness studies in the United States and internationally	Dagenais et al. (2008)	1358
2-Drug-Related Morbidity And Mortality - A Cost-Of-Illness Model (Johnson, 1995)	Johnson (1995)	709
3-A Cost-Of-Illness Study Of Back Pain In The Netherlands (van Tulder et al., 1995)	van Tulder et al. (1995)	540
4-Cost-Of-Illness Methodology - A Guide To Current Practices And Procedures (Hodgson & Meiners, 1982)	Hodgson and Meiners (1982)	461
5-The global economic burden of diabetes in adults aged 20-79 years: a cost-of-illness study (Bommer et al., 2017)	Bommer et al. (2017)	428
6-Annual Cost of Illness and Quality-Adjusted Life Year Losses in the United States Due to 14 Foodborne Pathogens (Hoffmann et al., 2012)	Hoffman et al. (2012)	416
7-Cost-of-illness studies: concepts, scopes, and methods (Jo, 2014)	Jo C. (2014)	378
8-Effectiveness and cost-effectiveness of home palliative care services for adults with advanced illness and their caregivers (Gomes et al., 2013)	Gomes et al. (2013)	375
9-Occupational injury and illness in the United States - Estimates of costs, morbidity, and mortality (Leigh, 1997)	Leigh J. (1997)	362
10-Using the World Health Organization Health and Work Performance Questionnaire (HPQ) to evaluate the indirect workplace costs of illness (Kessler et al., 2004)	Kessler et al. (2004)	325
<b>Total</b>		<b>5352</b>

Figure 2 a-b: Countries and Organizations

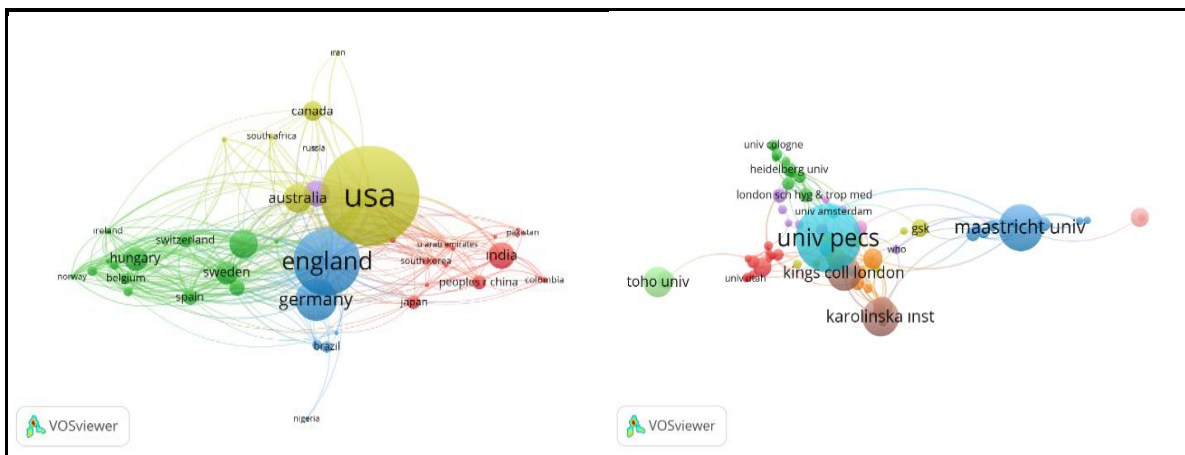


Figure 2a. Countries

Figure 2b. Organizations

Figure 2a. shows the most productive countries. In the country analysis, the minimum number of documents of a country and the minimum number of citations of a country is selected 5 and of the 95 countries, 46 meet the thresholds. For each 46 countries, the total strength of the co-authorship links with other countries was calculated. The countries with the greatest total link strength were selected. The United States of America (USA), England and Germany are the top three influential countries pertinent to scholarly knowledge on the cost of illness literature; 488, 211, and 195 articles were published.

Figure 2b. shows the most productive organizations. In the organization's analysis, the minimum number of documents of organizations and the minimum number of documents of an organization is selected 5 and of the 1914 authors, 83 meet the thresholds. For each of the 83 organizations, the total strength of the co-authorship links with other authors was calculated. The organizations with the greatest total link strength were selected. The University of Pecs, Kings College London and Maastricht University are the top three influential organizations pertinent to scholarly knowledge on the cost of illness literature; 73, 48, and 45 were linked with publications.



**Figure 3: Journals**

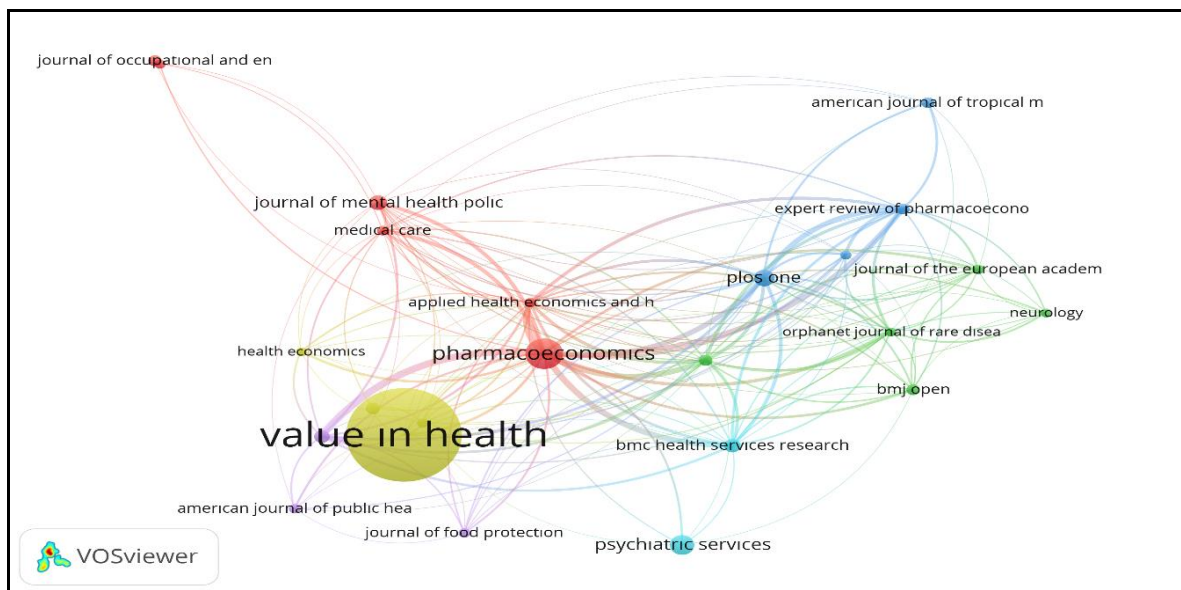
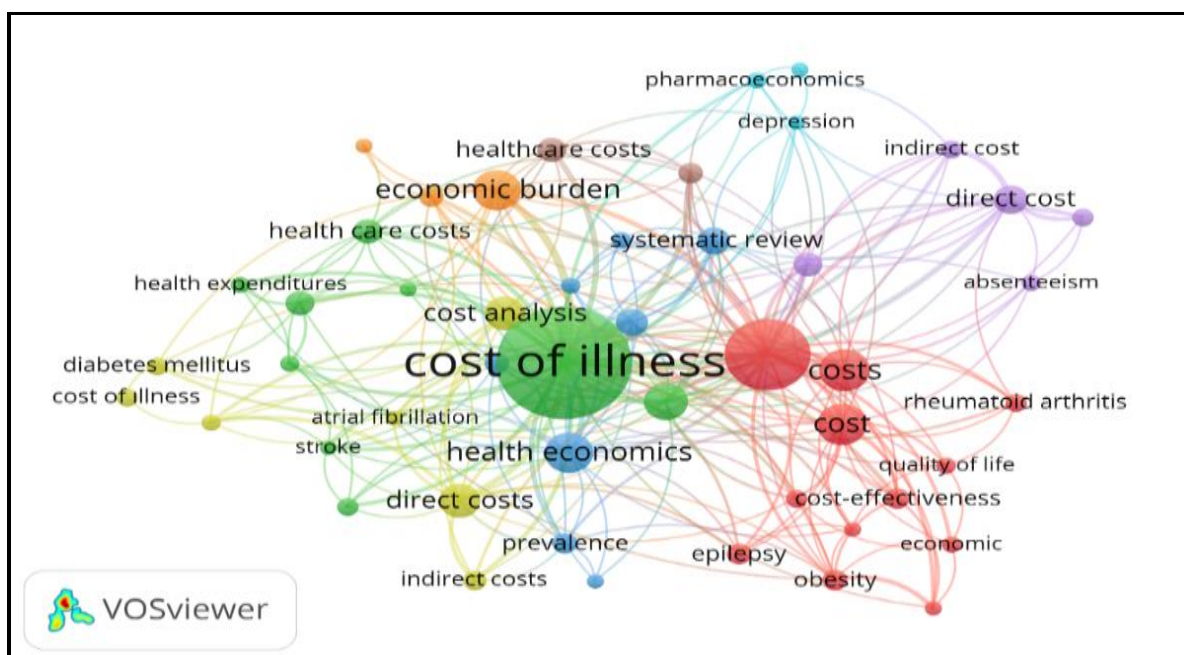


Figure 3 shows the most productive journals. In the journal analysis, the minimum number of documents of organizations and the minimum number of citations of a source is selected 5 and of the 425 journals, 24 meet the thresholds. For each of the 24 journals, the total strength of the citation links with other journals was calculated. The sources with the greatest total link strength were selected. The Value in Health, Pharmacoeconomics and Plos One journals are the top three journals; 219, 37, and 18 articles were published in these journals.

Figure 4 shows the author keywords. Author keyword analysis, the minimum number of occurrences of a keyword is selected 5 and of the 1025 keywords, 51 meet the thresholds. The keywords with the greatest total link strength were selected. “The cost of illness”, “health economics” and “economic burden” are the top three keywords; 131, 63, and 17.

**Figure 4. Author Keywords**



## 5. Discussion

The present study aims to map the terrain of "cost-of-illness" publications over five decades, identify research areas and conduct a bibliometric analysis of publications on the cost of illness. COI studies is an important research area in medicine, and it is natural to see that qualified publications have been published in this deep-rooted area.

According to the findings of the study, the number of publications has increased remarkably after the 2000s. 2019 has been the year with the highest number of publications. This is the consequence of digitalization all around the world after the 2000s. Technological advances generated electronic journals as an alternative to traditional scientific journals. This has enabled establishing a new academic communication system, facilitating peer reviews and fast-track production of publications. The number of electronic journals has increased rapidly in the literature of the 2000s (Harter & Kim, 1997). In addition, the notable surge in publications on the COI studies in the post-COVID period can be partially attributed to the global impact of the COVID-19 pandemic. This global health crisis has not only placed a significant strain on health systems but has also stimulated extensive research into the economic burden of disease (Nakhaee et al., 2024). Moreover, the shift towards electronic journals has not only transformed the dissemination of research but has also led to a notable increase in interdisciplinary studies, as scholars from diverse fields collaborate more easily across digital platforms (Dorsey, 2017). The rise of open access models has democratized knowledge sharing, allowing researchers in low-resource settings to engage with cutting-edge research without financial barriers, thus broadening the scope of contributions to critical areas like COI studies (Gupta et al., 2018). As move forward, it will be essential to monitor these evolving dynamics and their implications for future research trajectories, particularly in light of ongoing global health challenges (Ibáñez & Rodés-Cabau, 2019). This includes the need for innovative funding mechanisms and collaborative frameworks that can support interdisciplinary approaches, ensuring that diverse perspectives are included in the discourse surrounding health equity and access (Smith et al., 2017). Additionally, fostering partnerships between academic institutions, non-profits, and governmental organizations will be crucial in addressing these challenges effectively (Aagja et al., 2023).

Boncz, I., Sebestyen, A., and Endrei, D. are the most influential authors and greatly contributed to the cost of illness literature. The most cited top 10 publications have a total of 5352 citations; it was 14.71% (5352/36369) of total citations. The researchers dealing with cost of illness studies are mainly referred to in these authors and publications. When the publishing countries were evaluated, it was seen that developed countries were more efficient in producing publications. Some studies demonstrated a significant correlation between the economic development of countries and academic productivity (Munir et al., 2023; Valero & Van Reenen, 2019). The finding that the USA, England, Germany and are the most productive countries in the present study supports this correlation. This study also acknowledged that these countries are the most preeminent countries which extensively advanced the literature. This trend of academic productivity in COI research not only highlights the disparities between developed and developing nations but also raises questions about the accessibility of healthcare data necessary for such studies. In many resource-poor settings, where out-of-pocket spending dominates health financing, comprehensive data collection can be challenging due to socio-economic barriers (Durand-Zaleski, 2008). While countries like the USA and Germany continue to produce extensive literature, there is a pressing need for tailored approaches that consider local contexts, especially in regions with high disease burdens yet limited research output. Such disparities underscore the importance of fostering international collaborations that can bridge knowledge gaps and facilitate more inclusive health economics research globally (Greenberg et al., 2014).

According to organizations linked with authors, it has seen The University of Pecs, Kings College London and Maastricht University are the top three influential organizations, Among the

assorted publication outlets, The Value in Health, Pharmacoeconomics and Plos One journals seems that the key journals rigorously publish studies on COI. Early career researchers and researchers dealing with COI studies are mainly referred to in these journals and organizations.

The importance of COI studies extends beyond mere publication metrics; these analyses play a crucial role in shaping health policy and resource allocation. By quantifying both direct costs—such as medical expenses—and indirect costs like lost productivity, they provide a comprehensive view of the economic burden associated with various diseases. This multifaceted approach is essential for informing stakeholders about where to allocate funding effectively, particularly in light of rising healthcare expenditures across major diagnostic categories such as cardiovascular diseases and mental disorders (Heijink et al., 2008; Oderda, 2003). As researchers continue to refine methodologies and standardize frameworks for these studies, their findings will likely enhance international comparisons and drive improvements in public health strategies globally.

In the sample of 1715 publications on the COI, the authors' keywords extracted from all papers add up to 1.025, and the keywords indexed by the articles yielded 51 keywords. Of these keywords, the top author and index keywords were mapped appertaining to the number of co-occurrences. “*The cost of illness*”, “*health economics*” and “*economic burden*” were identified as the top three author keywords.

This study has several limitations. The study is comprehensive, but it only used one database, Web of Science, for data retrieval. This might have excluded some relevant research articles. Future studies should use data from other databases, such as Scopus, IEEE, or PsycINFO, to provide a more complete picture of the field. The findings may be affected by the interpretation of the results. This is a primary limitation of the study. In addition, the fact that only mentioned keywords were used in obtaining scientific publications related to the cost of illness publications can be considered another limitation.

## 6. Conclusion

Over the past five decades, there has been a significant rise in publications related to the COI. In recent years, the emergence of pandemics and global economic crises has placed substantial financial pressure on healthcare systems, leading to an increased focus on COI studies within academic literature. This growing attention is particularly evident in studies addressing healthcare service costs and cost control.

The insights gained from this analysis not only highlight key trends and characteristics within COI literature but also provide a valuable resource for researchers aiming to contribute to this field. By mapping out research focuses, keywords, journals, and collaboration patterns, this study offers a strategic framework for future investigations. This, in turn, enhances the potential impact of COI studies on health initiatives. The study aims to inspire further research while equipping decision-makers with essential economic insights that can inform healthcare policy and practice.

Given the critical role that COI plays in evaluating the economic burden of diseases, it is vital to emphasize how these studies contribute to a deeper understanding of public health and healthcare expenditures. The findings underscore the growing academic attention to COI due to its relevance in shaping public health policies and optimizing resource allocation. By addressing these factors, future COI studies can better align with the practical needs of the healthcare sector, offering more targeted recommendations for improving health outcomes and managing resources effectively.

To meet the rising emphasis on COI, healthcare service costs, and cost control, future COI studies should broaden their scope to include a wider range of diseases and healthcare conditions. This approach will lead to a more comprehensive understanding of the economic burdens on healthcare systems. Based on this study, several recommendations can guide future COI research:

researchers should follow the most influential authors in this field, review the ten most cited publications, and identify research gaps by focusing on key trends and underexplored areas.

Future research should strive to fill gaps in existing COI studies, especially concerning diseases or conditions that have received limited attention but still impose significant economic burdens. Expanding the research focus to cover a more diverse set of conditions will ensure a more balanced and thorough understanding of disease-related costs. Given the vast number of diseases, further bibliometric studies could focus on specific conditions to yield more precise and valuable insights for policymakers and healthcare professionals. Additionally, future research should explore this area, particularly given the substantial number of publications linking the pandemic to economic assessments in the health sector.

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