

UNIVERSAL HEALTH COVERAGE (UHC): TURNING EQUITABLE AND QUALITY HEALTH CARE ACCESS FOR ALL

*Universal Health Coverage (UHC): Mewujudkan Akses Pelayanan Kesehatan
yang Adil dan Berkualitas bagi Semua Orang*

Tesisiana Dwi Lestari^{1*}, Mahendro Prasetyo Kusumo¹

¹Master Program of Hospital Administration, Universitas Muhammadiyah Yogyakarta,
Yogyakarta, Indonesia

*Email: taritesisiana@gmail.com

ABSTRAK

Universal Health Coverage (UHC) merupakan sistem pembiayaan kesehatan yang memastikan setiap warga negara dapat mengakses layanan kesehatan yang adil dan berkualitas. Penelitian ini menganalisis literatur ilmiah tentang UHC dan Jaminan Kesehatan Nasional (JKN) dengan menggunakan analisis bibliometrik terhadap artikel 2019-2023 yang terindeks di Scopus, dengan alat VOS viewer. Temuan menunjukkan adanya 419 artikel, dengan tren publikasi yang meningkat dan sitasi terbanyak pada tahun 2019 (1.432) serta h-index tertinggi 23. Negara dengan kontribusi terbesar adalah Amerika Serikat (104 artikel). Peneliti teratas berasal dari negara Swiss. Kontribusi jurnal terbesar adalah Jurnal BMC Health Services Research dengan 7,64% dari total publikasi. Sumber pendanaan utama adalah Bill and Melinda Gates Foundation (30 artikel), WHO (25 artikel), dan Komisi Eropa (20 artikel). Dengan pendanaan utama ini, negara-negara berpendapatan rendah dan menengah dapat memanfaatkan peluang ini untuk mendanai penelitian yang relevan dengan tantangan kesehatan spesifik mereka, seperti implementasi Universal Health Coverage (UHC) dan Jaminan Kesehatan Nasional (JKN). Negara berpendapatan rendah perlu memperkuat kapasitas penelitian lokal, memanfaatkan pendanaan global, dan berkolaborasi untuk mendukung kebijakan kesehatan berbasis bukti dan reformasi sistem yang adil. Keterbatasan penelitian ini mencakup penggunaan hanya artikel yang terindeks di Scopus, periode analisis terbatas pada 2019-2023, dan fokus pada artikel akademik, yang mengabaikan data sektor non-akademik atau kebijakan praktis.

Kata kunci: asuransi kesehatan nasional, bibliometrik, negara berpenghasilan menengah bawah, Universal Health Coverage (UHC)

ABSTRACT

Universal Health Coverage (UHC) is a health financing system that ensures every citizen can access fair and quality health services. This research analyzes scientific literature about UHC and National Health Insurance (JKN) using bibliometric analysis of 2019-2023 articles indexed in Scopus with the VOS viewer tool. The findings show that there are 419 articles, with an increasing publication trend, the most citations in 2019 (1,432), and the highest h-index of 23. The country with the largest contribution is the United States (104 articles). The top researcher comes from Switzerland. The largest journal contribution is the BMC Health Services Research Journal, which has 7.64% of the total publications. The main funding sources are the Bill and Melinda Gates Foundation (30 articles), WHO (25 articles), and the European Commission (20 articles). With this key funding, low- and middle-income countries can take advantage of this opportunity to fund research relevant to their specific health challenges, such as the implementation of Universal Health Coverage (UHC) and National Health Insurance (JKN). Low-income countries need to strengthen local research capacity, leverage global funding, and collaborate to support evidence-based health policies and equitable system reforms. Limitations of this research include the use of only articles indexed in Scopus, the

analysis period being limited to 2019-2023, and the focus on academic articles, which ignores non-academic sector data or practical policies.

Keywords: bibliometrik, lower middle-income, national health insurance, Universal Health Coverage (UHC)

INTRODUCTION

Definition of UHC and NHI Universal Health Coverage (UHC) is one of the global priorities set by the United Nations (UN) General Assembly as part of the Sustainable Development Goals (SDGs) set in 2015, with a target of achievement by 2030 [1]. UHC aims to ensure that every individual has access to quality health services without having to face the risk of financial hardship [2]. The World Health Organization (WHO) defines UHC as a health financing system that allows every citizen to gain fair access to quality health facilities and services [3]. In the global context, UHC implementation is an important indicator for assessing countries' commitment to sustainable development, especially in ensuring equitable and inclusive public health [2].

Realizing the goal of UHC, many countries adopted National Health Insurance (NHI) as the primary strategy. NHI is designed to ensure that every individual has access to health services through an integrated financing system. With the basic concepts of solidarity, justice, and progressive universality, NHI aims to create an efficient and sustainable health system while protecting society from the risk of financial difficulties due to health costs. The NHI system also allows the government to manage health financing in a more structured manner so that it can maximize the efficiency of resource allocation to meet the overall health needs of society [4].

The Importance of This Topic The implementation of UHC and NHI is paramount in creating a healthy and productive society. In many developing countries, such as Ghana and Nigeria, NHI systems have demonstrated positive impacts in reducing socio-economic disparities in access to health services. In Ghana, for example, the implementation of the NHI scheme, which began in 2003, has helped people gain access to health services more efficiently, especially for vulnerable groups who previously faced financial constraints. However, this implementation still faces various challenges, such as inadequate financing, lack of public awareness, and gaps in health service utilization. In Nigeria, although the NHI scheme has been introduced since 2005, only a tiny portion of the population is covered by this service, and the majority of people still have to pay health costs directly out of pocket (*out-of-pocket expenses*) [5].

Globally, the role of UHC and NHI is becoming increasingly relevant because many countries are starting to realize the importance of inclusive health systems to achieve societal well-being [6]. An integrated health system not only contributes to improving the quality of life but also supports economic growth through increasing labor productivity. When people have better access to health services, they tend to be healthier, more productive, and better able to contribute to economic development. Therefore, strengthening the implementation of UHC and NHI is a priority in the global development agenda. The research objective is to comprehensively analyze the scientific literature on the implementation of UHC and NHI during the period 2019 to 2023. Using a scientometric approach, this research explores research trends, citation patterns, and policy relevance that appear in the related literature. Scientometrics is a branch of information science that allows quantitative analysis of research patterns in scientific literature, thereby providing deep insight into how specific topics have been explored and adopted in various contexts. By mapping research trends, this research can help identify areas that require more attention in health policy, such as financing mechanisms, inclusion of vulnerable groups, and strategies to increase public awareness of the importance of universal health coverage. In addition, this research also seeks to provide

data-based recommendations that can be used to improve the design and implementation of health policies in the future.

This research is significant in supporting global and national health policies. By identifying patterns and trends in the implementation of UHC and NHI, the results of this research are expected to provide strategic insights for policymakers, researchers, and health practitioners. One of the main contributions of this research is its ability to offer data-based analysis that can form the basis for the development of more effective health policies. For example, by understanding the main barriers to NHI implementation, the government can design strategic steps to increase service coverage and ensure the sustainability of the national health system. Additionally, this research contributes to the scientific literature by offering data-driven analyses that can be used to improve the design and implementation of future health policies. It is also hoped that this research can become a reference for other countries that are considering adopting UHC and NHI as part of their national health development strategy. Thus, this research is not only academically relevant but also has broad practical implications in supporting global efforts to achieve inclusive and sustainable universal health coverage [6].

METHODS

Data Sources

To provide an in-depth understanding of the contributions of academics and researchers to literature related to Universal Health Coverage (UHC) and National Health Insurance (JKN), this study quantitatively assesses the volume of research and trends of scientific publications on UHC and JKN over the past five years (2019–2023) [7]. This study uses a scientometrics-based approach, data and text mining, and medical informatics as the foundation of the methodology [2]. The study adopts traditional bibliometric methodologies that have proven effective for analyzing and assessing a wide range of medical and scientific topics. The analysis process begins with searching for articles using specific keywords such as "Universal Health Coverage," "National Health Insurance," "UHC implementation," and "NHI challenges." Searches are carried out on leading scientific databases such as Scopus to ensure extensive literature coverage.

Inclusion and Exclusion Criteria

The data were taken from Scopus, which was selected for its credibility, despite limitations, such as the possibility of relevant research outside of Scopus or in a non-English language being missed. To ensure relevance and quality, articles are evaluated based on topic, research method, contribution to understanding UHC and NHI, and credibility of the journal (preferably Q1 and Q2). Articles that explicitly discuss UHC and NHI implementations with robust methodologies and significant policy insights are prioritized. The selection process is carried out systematically, including only journal articles and literature reviews from the fields of public health, policy, and health economics. However, the limitations of data coverage and language remain a concern in this analysis [8]. Scopus data was selected for its rigor and completeness. The researcher's role explicitly helps provide detailed data extraction points for reproducibility.

Data Extraction

Data is downloaded in comma-separated values format (CSV). Two authors independently extracted pertinent data, including (1) the total number of documents published during the study period; (2) the journals with the highest number of publications related to UHC and NHI; (3) the authors with the highest number of publications in the field of UHC and NHI; (4) the top 10 journals with the highest number of publications related to UHC and NHI; (5) the most active funding sources for UHC and NHI research; (6) the research centers and institutions that have produced the most significant number of UHC and NHI related research papers; (7) the nations that have made the most

significant contributions to UHC and NHI research; (8) the most cited papers; and (9) the most recent journal impact factors available in 2019.

Data Analysis

VOSviewer is a visualization software used to analyze and map relationships in literature related to Universal Health Coverage (UHC) and National Health Insurance (NHI). The tool generates network maps, cluster diagrams, and temporal distribution graphs to identify key themes, relationships between topics, and the development of research trends. For example, keyword maps help uncover key focuses and related subthemes, while temporal distributions show changes in attention to a particular topic over time. This visualization provides in-depth insight into the patterns and directions of UHC research and NHI. The PRISMA flowchart can be seen in figure 1 below.

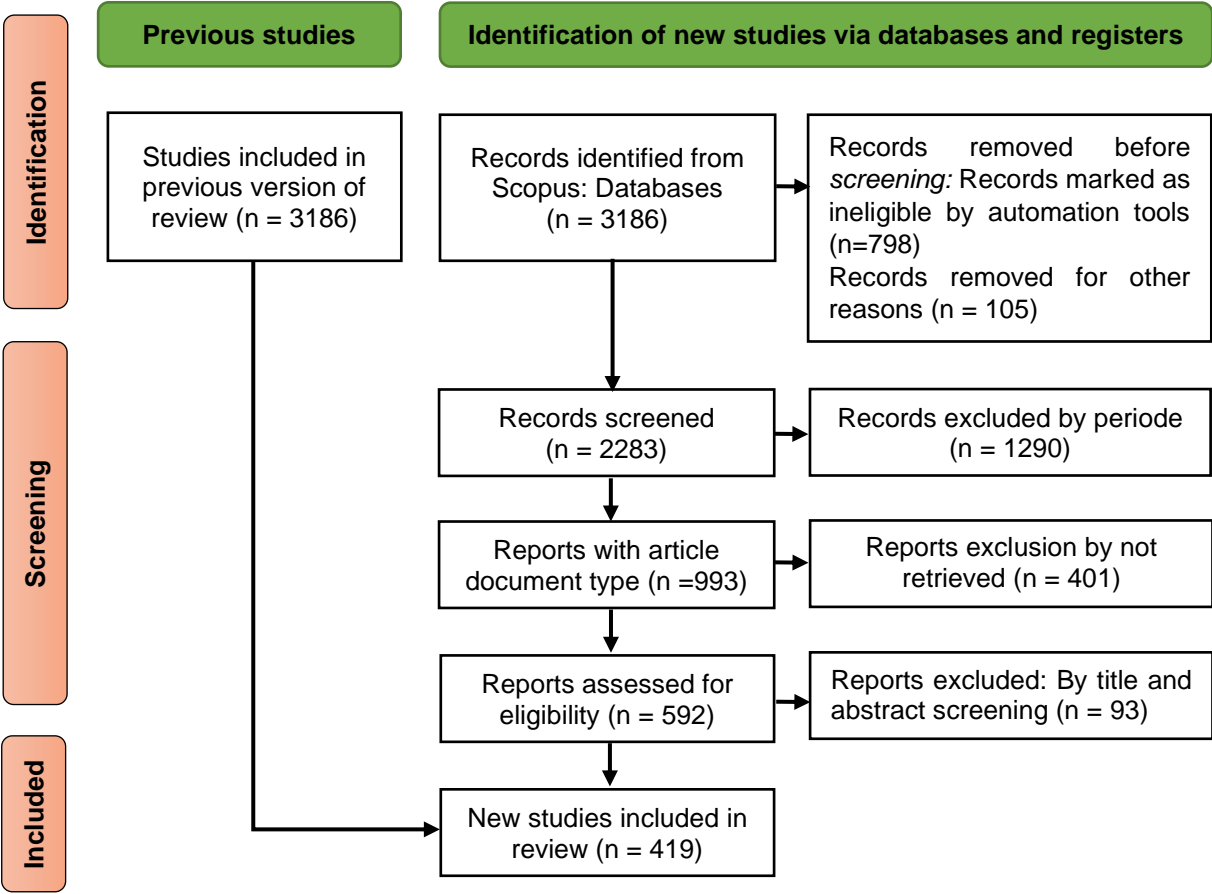


Figure 1. Prisma Methode for search Strategy
Source. Processed by Author (2024)

RESULT

The research resulted in 3186 records from Scopus databases. The 419 remaining studies were included in this analysis following the identification, screening, eligibility, duplicate elimination, and exclusion procedures. The remaining items were disqualified because they didn't fit the inclusion requirements.

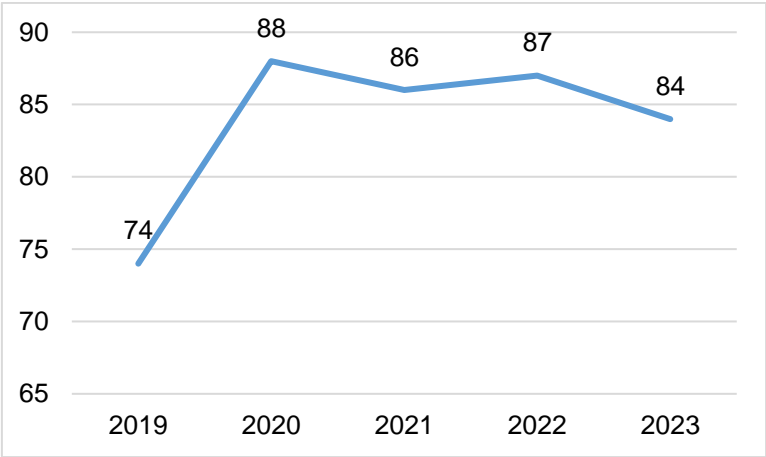


Figure 2. Number of Publications Related to Universal Health Coverage and National Health Insurance per year

Figure 2 shows a consistent increase in the number of publications related to Universal Health Coverage (UHC) and National Health Insurance (NHI) from 2019 to 2023. Significant spikes in specific years, for example, 2021, can be attributed to the impact of the COVID-19 pandemic, which increased global attention towards a universal health system [9]. The pandemic is driving research to understand how NHI can contribute to health system resilience, access to health services, and mitigating financial risks for vulnerable populations. The surge in publications also reflects increasing global policy commitment to the Sustainable Development Goals (SDGs) target of achieving UHC by 2030. Many countries are starting to accelerate the implementation of policies related to NHI, thereby attracting academic interest in evaluating its effectiveness and challenges. Additionally, the growth in citations in a given year indicates a broader recognition of the relevance and quality of related research, primarily focused on the relationship between NHI and reducing health access disparities.

The implications of these findings for UHC and NHI research are significant. First, these trends demonstrate the need to explore the role of NHI in more depth in addressing global challenges, such as health and financing inequalities. Second, these data provide direction for researchers to prioritize studies that support evidence-based policy design and implementation, especially in developing countries. Third, the surge could encourage more intensive international collaboration to share best practices in achieving UHC goals through NHI.

Table 1. Number of Publications Related to Universal Health Coverage and National Health Insurance per Year

Year	Total Publication	Total Citation	Number Citation Paper	H-index	G-index
2019	74	1432	71	23	33
2020	88	1247	88	7	10
2021	86	788	786	14	21
2022	87	502	502	9	17
2023	84	221	220	7	10

Based on Table 1, it can be seen that in 2021, the highest number of publications was 86 papers. In 2019, there were 74 publications with the highest citations, namely 1432 with the highest h index of 23. This shows that the articles published in 2019 significantly impact UHC and NHI research. This means that these articles get many citations from other researchers, which are considered a significant contribution to developing and understanding the topics. Trend analysis shows that 2019 was the peak of publication productivity and influence, with the number of citations, H-index, and G-

index being much higher than in subsequent years. The decline in citations, H-index, and G-index after 2019 may reflect reduced relevance or quality of research in subsequent years or reduced attention by the academic community to newer publications. The stability of the number of publications is not always directly proportional to the impact of citations, as can be seen from the decline in citations in 2020–2023.

Table 2. Most Cited Publications in 2019

Authors	Title	Source title	Rank	Cited by
Angell et al., 2019	The ayushman bharat pradhan mantri janarogya yojana and the path to universal health coverage in india: Overcoming the challenges of stewardship and governance.[10]	PLoS Medicine	Q1	85
Smith et al., 2019	Global progress on the elimination of viral hepatitis as a major public health threat: An analysis of WHO Member State responses 2017.[11]	JHEP Reports	Q1	80
Moses et al., 2019	Funding and services needed to achieve universal health coverage: applications of global, regional, and national estimates of utilisation of outpatient visits and inpatient admissions from 1990 to 2016, and unit costs from 1995 to 2016.[12]	The Lancet Public Health	Q2	64
Barteit et al., 2019	E-learning for medical education in sub-Saharan Africa and low-resource settings: Viewpoint.[13]	Journal of Medical Internet Research	Q2	61
Sumriddetchkajorn et al., 2019	Universal health coverage and primary care, Thailand; [Couverture sanitaire universelle et soins primaires en Thaïlande]; [Cobertura sanitaria universal y atención primaria, Tailandia].[14]	Bulletin of the World Health Organization	Q2	58
Sumriddetchkajorn et al., 2019	Socioeconomic inequalities in maternal health care utilization in Ghana.[14]	International journal for equity in health	Q2	52
Chen et al., 2019	Current situation and progress toward the 2030 health-related Sustainable Development Goals in China: A systematic analysis.[15]	PLoS Medicine	Q3	48
VTangcharoensathien et al., 2019	The Political Economy of UHC Reform in Thailand: Lessons for Low- and Middle-Income Countries.(VTangcharoensathien et al., 2019)	Health Systems and Reform	Q3	43
Onwujekwe et al., 2019	Exploring effectiveness of different health financing mechanisms in Nigeria; what needs to change and how can it happen?[16]	BMC Health Services Research	Q3	43
Stenberg et al., 2019	Guide posts for investment in primary health care and projected resource needs in 67 low-income and middle-income countries: a modelling study.[17]	The Lancet Global Health	Q3	42

Table 2 presents the top ten studies based on the number of citations in 2019. The ayushman bharat pradhan mantri janarogya yojana and the path to universal health coverage in india: Overcoming the challenges of stewardship and governance to be the publication with the most citations in 2019. It appears that India, as a lower middle-income country, has implemented NHI as a health policy towards UHC. The Indian government health insurance program will cover around 100 million poor and vulnerable families in India, for inpatient services in secondary and tertiary care, as well as the provision of comprehensive primary healthcare[10]. The journals with the most citations are the Q1, Q2, and Q3 indexes. This shows that the editors are interested in this topic and that publications related to UHC and NHI are essential and useful for making health policies. The research titles take the topic of high-income countries such as China and upper-middle-income countries such as Thailand, India, and Nigeria.

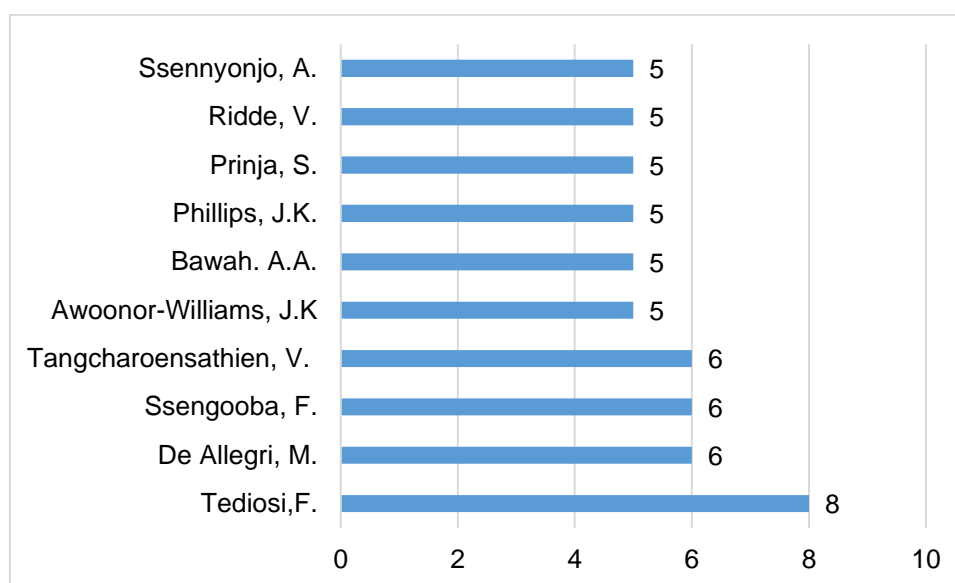


Figure 3. Authors with the Highest Number of Manuscripts Related to Universal Health Coverage and National Health Coverage

Figure 3 shows Tediosi, F. writer from the Swiss Tropical and Public Health Institute Swiss TPH, Allschwil, Switzerland is author with the highest number of manuscripts related to universal health coverage and national health coverage. The topics most contributed to in 2019-2023 are social security, health services, and national health insurance, and as many as 16 articles. Many low-income countries are in the process of improving health insurance with the goal of achieving universal coverage. Tanzania, as a low-income country, already has NHI. Meanwhile, De Allegri, M., in his research, which has been widely referenced, explains that the need for consumers to register for health insurance in rural West Africa is due to providing adequate policy guidance to decision-makers in low and middle-income countries by generating an in-depth understanding of how consumer preferences may influence the decision to participate [18]. However, Ssengooba, F. explained that the health problems faced in Bangladesh still need to be addressed with nepotism and limited resources in recruiting health staff [19]. This finding is also supported by the highest manuscripts, as listed in Table 3 below.

Table 2. Authors with The Highest Number of Manuscripts Related to Universal Health Coverage and National Health Coverage

Rank	Author Name	Country	Number of publications	Citations	Percentage (n/419)	H-index
1	Tediosi, F.	Switzerland	8	123	1,91%	6
2	De Allegri, M.	Germany	6	9	1,43%	2
3	Ssengooba, F.	Uganda	6	17	1,43%	3
4	Tangcharoensathien, V.	Thailand	6	102	1,43%	4
5	Awoonor-Williams, J.K.	Ghana	5	42	1,19%	3
6	Bawah, A.A.	Ghana	5	46	1,19%	3
7	Phillips, J.F.	United States	5	46	1,19%	3
8	Prinja, S.	India	5	122	1,19%	2
9	Ridde, V.	France	5	19	1,19%	2
10	Ssenyonjo, A.	Uganda	5	14	1,19%	3

In Table 3 of Thediosi, F as the author with the most citations of 132 citations with an h index of 6. The ten authors with the most publications came from Switzerland, Germany, Uganda, Thailand, Ghana (2 authors), United States, India, France. It seems that UHC and NHI have become the focus in countries with high to low income. Nigeria, as a lower middle-income country, has implemented the National Health Insurance scheme with managing and implementing the Social Health Insurance Program for the Formal Sector (FSSHIP). The government's policy provides the necessary support for the national health insurance scheme. FSSHIP was officially launched in 2005. It only includes federal government employees and beneficiaries.[16]

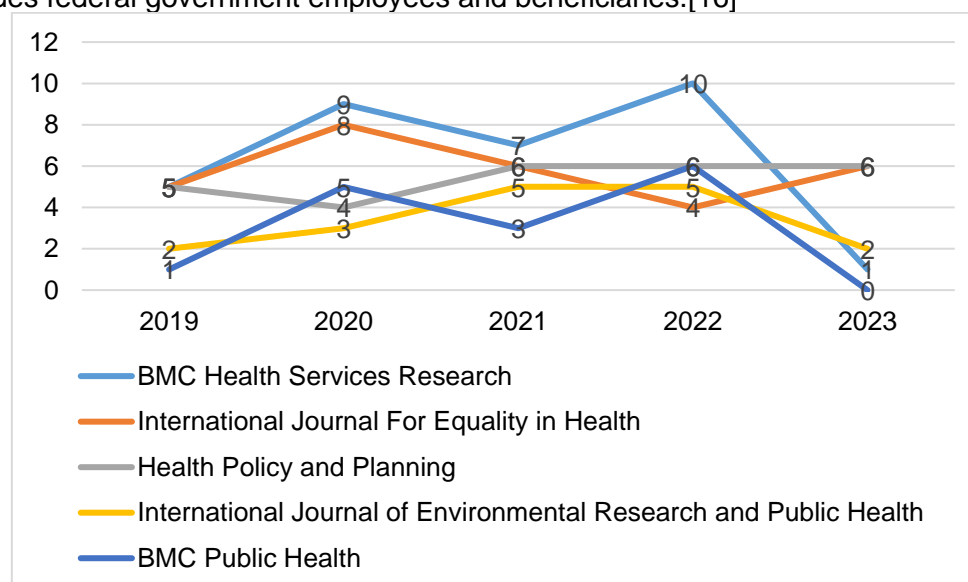


Figure 4. Journals with The Highest Number of Publications of Articles Related to UHC and NHI

Figure 4 shows five journals with the highest number of publications of articles related the topics. BMC Health Service Research topped the list in 2019 (5 articles, 2020 (9 articles), 2021 (5 articles) and in 2023 (10 articles). In 2023 the International Journal for Equity in Health and Health Policy and Planning topped the list with 6 articles.

These findings indicate an increasing trend in the number of publications related to the topics covered, which may reflect the growing interest among researchers and leading journals in the field of health and public policy. BMC Health Service Research, which has been at the top of the rankings for several years, reflects the journal's consistency and significant contribution to the development of research in the field of healthcare.

An increase in the number of articles in 2023 in *the International Journal for Equity in Health* and *Health Policy and Planning* with 6 articles each can indicate a greater focus on health equity issues and more equitable health planning policies, which are now important topics in academia and policy. These results can be compared to other studies in the same field, which also show increased attention to health issues that are more holistic and focus on equality of access. Several studies show that leading health journals, such as those recorded in these results, are publishing more articles as attention is paid to issues such as health inequality, health policy planning, and efficient and inclusive management of health services. In addition, many journals are seeking to publish more articles in an effort to address global issues related to health and equity, which may be related to the COVID-19 pandemic and its impact on health policy around the world.

Table 3. Journals with the Highest h-index Related to UHC and NHI 2019-2023

Rank	Source	NP	TC	h-index	Q	n/419
1	BMC Health Services Research	32	363	12	Q2	7,64%
2	International Journal for Equity in Health	29	341	10	Q1	6,92%
3	BMC Public Health	21	302	9	Q1	5,01%
4	Health Policy and Planning	21	259	8	Q1	5,01%
5	International Journal of Environmental Research and Public Health	17	82	6	Q1	4,06%
6	BMJ Open	14	124	5	Q1	3,34%
7	Health Research Policy and Systems	13	76	5	Q1	3,10%
8	Health Systems and Reform	13	124	6	Q1	3,10%
9	Frontiers in Public Health	12	33	4	Q2	2,86%
10	International Journal of Health Policy and Management	10	79	6	Q1	2,39%

Table 4 shows ten journals with the highest number of articles related to the topic. Among them BMC Health Services Research ranks at the top of the number of publications with 32 publications n/419, or 7.64%. As a journal with an H index of 12, it is the highest journal that has the most influence on research on this topic. In second place is the International Journal for Equity in Health with a publication number of 29. Ranking 3rd and 4th with 21 number publications are BMC Public Health and Health Policy and Planning. The International Journal of Environmental Research and Public Health ranks 5th with 17 number publications. Of the 10 journals with the highest citation index, 8 out of 10 are journals with Q1 index.

Figure 5 shows that the most active funding sources related to the topic are the Bill and Melinda Gates Foundation 30 articles. The Bill and Melinda Gates Foundation (BMGF) is one of the largest and most influential philanthropic organizations in the world, founded by Bill Gates and Melinda French Gates in 2000. This foundation has a mission to improve the quality of human life through various initiatives in the fields of global health, education, economic development, and gender equality [20]. Meanwhile, the World Health Organization has 25 articles. The World Health Organization (WHO) is a specialized agency of the United Nations (UN) responsible for coordinating and leading

global health efforts [21]. WHO was founded on April 7, 1948, which is now celebrated as World Health Day.

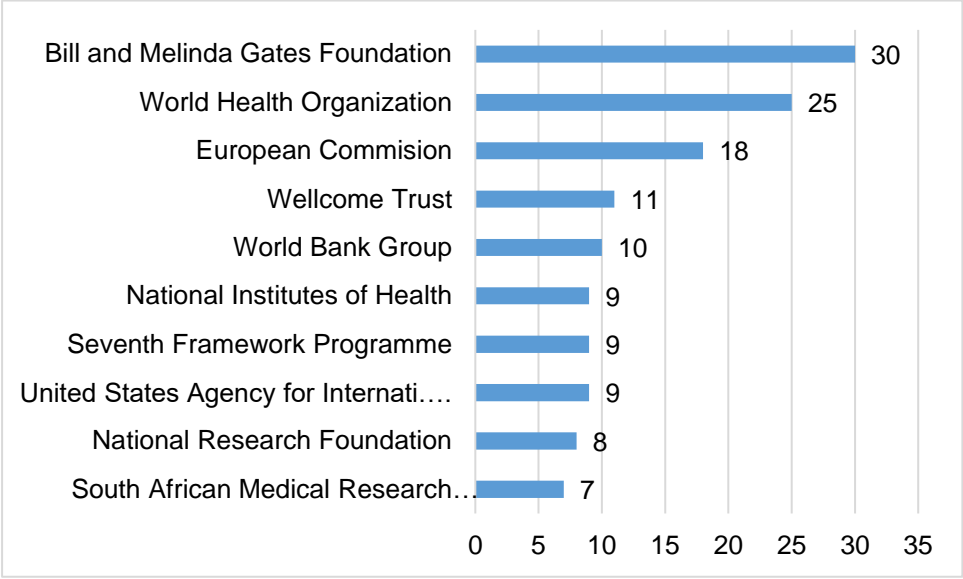


Figure 5. Most Active Funding Sources for Universal Health Coverage and National Health Insurance Research

The European Commission 19 articles, this institution also has an important role in the health sector in the European Union (EU), although health policy is generally the responsibility of member states. The Commission functions as a coordinator, facilitator and supporter to ensure better public health across the EU [22]. The Wellcome Trust 11 articles, The Wellcome Trust has a primary focus on funding research, innovation and initiatives aimed at tackling disease and strengthening health systems [23]. Meanwhile, the World Bank Group 10 articles. The World Bank Group (WBG) plays an important role in supporting the improvement of public health throughout the world, especially in developing countries. As an international financial institution, the WBG provides financing, technical assistance, and data-driven policies to help countries improve their health systems and address global health challenges [24].

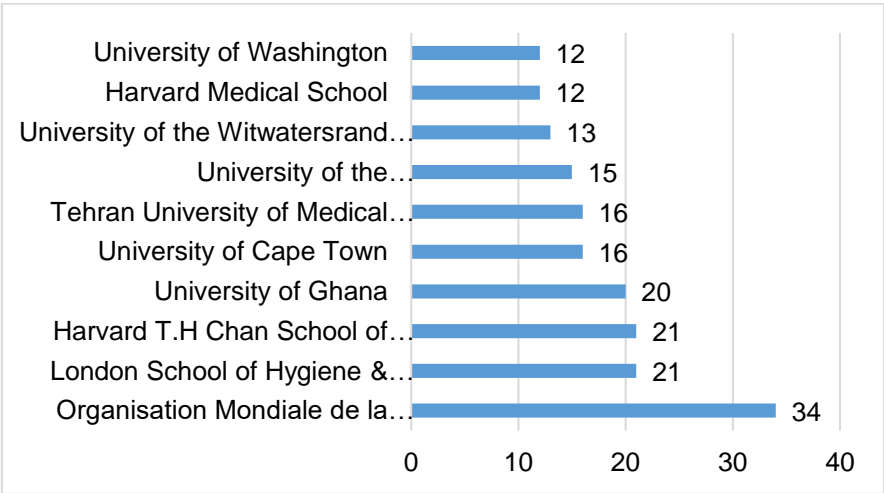


Figure 6. Highest-Producing Institutes and Research Centers for Universal Health Coverage and National Health Insurance Research

Figure 6 lists the top research centers and institutes for national health insurance and universal health coverage: Organisation Mondiale de la Santé (33 articles), London School of Hygiene & Tropical Medicine (21 articles), Harvard T.H. Chan School of Public Health (21 articles), University of Ghana (20 articles), and University of Cape Town (16 articles). Organisation Mondiale de la Santé (The World Health Organization) is the leading and coordinating authority for health within the United Nations system. The London School of Hygiene & Tropical Medicine, and Harvard T.H. Chan School of Public Health, it is also one of the most prestigious institutions that, in recent decades, has promoted studies related to UHC and NHI, particularly in low-income countries, to improve health in those countries and achieve UHC goals. Table 5 below shows the countries that are most concerned about UHC and NHI 2019-2023.

Table 4. Ten Countries That Contributed the Most to The Research Field of UHC and NHI during 2019-2023

Country	A Number of UHC and NHI Related Research Papers Contributed
United States	104
United Kingdom	80
South Africa	58
Switzerland	40
Indonesia	38
Ghana	36
Australia	34
India	31
Canada	29
Netherlands	25

Table 5 shows the countries that contributed the most to UHC and NHI research. The United States, the United Kingdom, South Africa, Switzerland, and Indonesia contributed 104, 80, 58, 40, and 38 papers, respectively. The most cited article from India written by Angell et al. (2019) is entitled "The Ayushman Bharat Pradhan Mantri Janarogya Yojana and the Path to Universal Health Coverage in India: Overcoming the Challenges of Stewardship and Governance" with 85 citations. The successive national Governments of India have expressed commitment to achieving universal health coverage (UHC) [10]. Meanwhile, in Indonesia, the relationship between UHC and NHI focuses on the mechanism for increasing National Health Insurance (JKN) for the poor. One of the factors that supports significant participation is that a higher level of education will make them more likely to participate in JKN. Thus, government intervention is needed to improve JKN in an effort to expand universal health insurance (UHC) coverage [25]. This finding is emphasized in data visualization using the VOSViewer application, where universal health convergence studies are very dominant and important. More details can be seen in Figure 7 below.

Figure 7 shows the network of words, themes, and topics associated with UHC and NHI. The top keywords were "lower middle-income country," "health insurance," and "upper middle-income country." Lower middle-income countries include Ghana, India, Kenya, and Nigeria. Upper middle-income countries that contributed to the publication of South Africa, Indonesia, and Thailand.

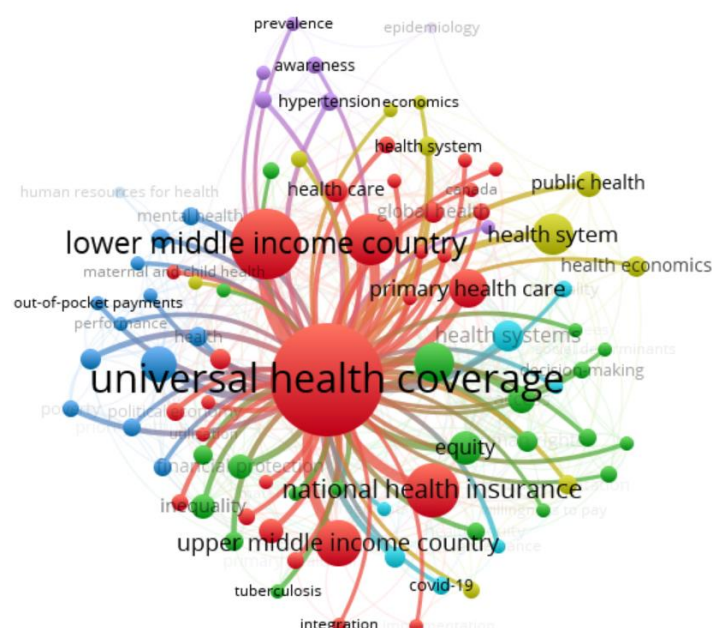


Figure 7. Network of the most used keywords related to UHC and NHI

The results of this research show that there are 419 articles with an increasing publication trend and high scientific interest. Articles in 2019 had a significant impact, with the most citations (1,432) and the highest h-index (23). The best researchers come from various countries, including Switzerland, Germany and the United States. The BMC Health Services Research journal accounted for 7.64% of publications. The primary funding sources are the Bill and Melinda Gates Foundation, WHO, and the European Commission. The United States led country contributions with 104 articles, followed by the United Kingdom, South Africa, Switzerland, and Indonesia. Thus, Universal Health Coverage (UHC) and National Health Insurance (JKN) are two important concepts in the health system that are interrelated but have different coverage and approaches [26]. UHC is a global goal defined by WHO as a situation where all individuals and communities can access the health services they need without facing financial hardship [27]. UHC aims to ensure equitable access to health [28]. Improving community welfare and reducing the burden of health costs on individuals [29].

Meanwhile, JKN is an insurance scheme managed by the government or national institutions to finance health services [30]. Generally, financing comes from community contributions through taxes or insurance contributions [4]. The main characteristics of JKN include centralized financing, which is when the government collects and manages funds. This is also supported by financial solidarity, where people contribute according to their abilities, while access to services is based on health needs [31]. In addition, JKN has health service partnerships with health facilities to provide certain services [32].

Indonesia can see its implementation through the Social Security Administering Body (BPJS), a form of national health insurance to achieve UHC [33]. Meanwhile, in Canada, the implementation of the national health insurance system covers all citizens through tax financing. JKN is also often used to achieve UHC by ensuring that health services are affordable and available to the entire population [33]. Another important condition is that UHC only occasionally requires JKN; some countries use other mechanisms, such as direct subsidies. JKN can be used in various forms, including single or multiple-payer systems [34].

The strengths of this research include the analysis of 419 articles and the provision of a broad overview of global trends, citations, and contributions to UHC research. Identifying key actors, such as countries, funding agencies, and key journals contributing to developing UHC knowledge, is beneficial for cross-sector collaboration. This, coupled with contributions from various countries and institutions, shows the global relevance of UHC and provides insight into variations in implementation approaches in different regions. The findings regarding 2019 as the peak of citations provide important information about a critical period for developing literature and the impact of research related to UHC. Meanwhile, the limitation of this research is that it only covers specific data up to a particular year, so the latest developments may not be represented. This research focuses more on journal articles, so field experiences, policy practices, or data from non-academic organizations may not be included. There is no in-depth exploration of how the results of this research are applied in diverse local contexts, especially in developing countries.

Thus, these findings can form the basis for further research, especially in exploring the impact of UHC policies at local and global levels. This research highlights the importance of collaboration across countries and funding agencies in accelerating UHC implementation. As mentioned in the findings, developing countries like Indonesia can utilize the research results to evaluate and strengthen their UHC programs.

The findings have several practical implications that can be used to inform health policy, particularly in low- or middle-income countries. These countries often face major challenges in providing equitable and affordable access to health for all their citizens. By understanding these findings, policymakers can design more effective UHC programmes, utilising centralised financing schemes and financial solidarity models such as those in Indonesia through JKN. Countries with limited resources can learn from countries that have successfully implemented UHC, such as Canada, to adapt their systems to local conditions, ensuring that health services are available and affordable to the entire population without compromising financial sustainability.

The lack of research contributions from low- and middle-income countries emphasizes the need to strengthen local research capacity through training, funding, and international collaboration to create relevant and effective health policies [35]. Additionally, funding from global organizations such as WHO and the Bill and Melinda Gates Foundation must be utilized strategically to support priority projects, including the implementation of Universal Health Coverage (UHC) and National Health Insurance (NHI) [36]. It is also important to adapt NHI models to suit local contexts to improve access and sustainability of health systems [37]. One of the priorities is that evidence-based research data can also help the government formulate policies that improve the distribution of health workers, services in remote areas, and access for vulnerable groups [38]. Thus, there is a need for regional and global collaboration that allows low- and middle-income countries to share experiences and accelerate health reform, strengthening more equitable and sustainable systems [39].

In addition, other researchers can build on these findings by digging deeper into the effectiveness of UHC policies in developing countries, especially in unique local contexts. Further research can explore the implementation of JKN or other national insurance systems in various countries with a focus on its impact on access to health services, poverty reduction due to health costs, and equity in health services. Researchers can also expand the study to include field experiences and policies implemented by non-governmental organizations focused on improving health systems in low-income countries.

This research can be the basis for developing countries, such as Indonesia, to evaluate and strengthen their UHC programs. By identifying key actors and stakeholders in UHC implementation, as well as leveraging support from international funding

agencies, these countries can accelerate UHC achievement and improve their health systems to better serve society.

CONCLUSION

The conclusions of this study demonstrate the importance of analyzing publication trends to understand global health research priorities. The findings from this research can help policymakers in Indonesia strengthen their JKN program by studying funding strategies from countries such as South Africa or Thailand. Increased scientific interest in Universal Health Coverage (UHC) and National Health Insurance (NHI), with 419 publications between 2019 and 2023. The BMC Health Services Research journal dominates with 7.64% of total publications, while RUU and the Melinda Gates Foundation are the primary sources of funding. The United States was the most significant contributor, with 104 articles. Mapping the main topics includes lower-middle-income countries, health insurance, and upper-middle-income countries, while the topic of low-income countries is still unexplored, opening up opportunities for further research. Research implications for the future could focus on measuring UHC achievements in various regions, especially in aspects of access, quality, and affordability of health services. Plus, it helps to analyze funding models in low-income areas. These articles have also received numerous citations, highlighting their important contributions to advancing UHC and NHI research.

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