

## Overview of Health Paradiplomacy: A Bibliographic Study

Siti Nurindah Mointi<sup>1\*</sup>, Destian K Rauf<sup>2</sup>, Moh. Falmes Lakadjo<sup>3</sup>, Adnan Malaha<sup>4</sup>

<sup>1,2,3</sup>International Relations Program, Universitas Bina Mandiri Gorontalo, Indonesia

<sup>4</sup>Faculty of Science, Technology, and Health Sciences, Universitas Bina Mandiri Gorontalo, Indonesia

[<sup>1</sup>rindanumces@gmail.com](mailto:rindanumces@gmail.com), [<sup>2</sup>raufdestiankhalediansyah@gmail.com](mailto:raufdestiankhalediansyah@gmail.com)

[<sup>3</sup>mohamadfalmeslakadjo@gmail.com](mailto:mohamadfalmeslakadjo@gmail.com), [<sup>4</sup>Adnan.malaha@ubmg.ac.id](mailto:Adnan.malaha@ubmg.ac.id)

\*correspondence: [<sup>1</sup>rindanumces@gmail.com](mailto:rindanumces@gmail.com)

### ABSTRACT

This bibliographic study aims to identify trends, actors, themes, and patterns of cooperation in the literature and practice of Indonesian health paradiplomacy from 2020 to 2025. The method used is a qualitative approach with descriptive-analytical methods and content analysis techniques on 13 relevant articles from online searches. The results show a steady increase in health paradiplomacy practices and studies during this period, with Japan as the dominant partner and regional mayors as the most active local actors. The findings of the content analysis (word frequency query) show that the main focus is on improving public services (25.74%), the role of regions (11.24%), and cooperation through schemes such as sister cities. The main conclusion is that health paradiplomacy is growing rapidly, focusing on improving public services and strengthening regional capacity through international collaboration. Recommendations include the need to strengthen the documentation of cooperation databases, increase the capacity of human resources in health diplomacy, and support academic research. The implications of this research are as a scientific database for policy makers in strengthening central-regional synergies for an inclusive and sustainable national health system resilience.

**Keywords:** *Health Paradiplomacy, Health Diplomacy, Sister City, Public Services, Bibliography*

### INTRODUCTION

In the last five years, global health dynamics have positioned diplomacy as an important instrument in addressing cross-border challenges, ranging from the COVID-19 pandemic to health system transformation. Indonesia has been one of the countries actively developing health diplomacy, a form of diplomacy that combines foreign interests with efforts to improve national health. This phenomenon has emerged not only in the framework of formal foreign policy implemented by the Ministry of Foreign Affairs and the Ministry of Health, but also through the practice of paradiplomacy by local governments, health agencies, and academic institutions in various regions of Indonesia. Health paradiplomacy reflects the involvement of subnational actors in establishing international cooperation in the field of health, outside the traditional diplomatic channels of the State (WHO, 2019). In the Indonesian context, a number of regions have become active players in

health paradiplomacy. For example, the cooperation between the North Minahasa Health Office and countries participating in the South-South and Triangular Cooperation (SSTC) program facilitated by the Japan International Cooperation Agency (JICA) in increasing the capacity of maternal and child health workers (Josh, 2024). The Bandung–Hamamatsu (Japan) collaboration in medical human resource exchange (rubby jovan primananda, 2025). or the Surabaya–Seattle (United States) partnership in health management technology (Sasetya Wilutama, 2024).

A similar phenomenon can also be seen at the provincial level, such as the collaboration between Central Java and Queensland University of Technology, Australia, in health worker training and medical waste management in 2023 (ikp, 2019). All of these practices show that paradiplomacy has become a real part of Indonesia's increasingly decentralized health diplomacy ecosystem. The urgency of this research stems from the fact that health diplomacy is no longer limited to the realm of inter-state relations, but has become a strategic arena for various actors in building national health security. Since the COVID-19 pandemic, international cooperation in the health sector has increased sharply. Data from the Sriwijaya Journal of International Relations (Prihandoko et al., 2022) shows that Indonesian health diplomacy plays an important role in ensuring access to vaccines and medical equipment through global networks, including through multilateral mechanisms such as the CORVAX Facility. This confirms that health diplomacy is not only an instrument of foreign policy, but also a technocratic strategy to ensure the availability of health resources for the Indonesian people. According to a report by the Ministry of Health (kemenkes, 2025), Indonesia is currently strengthening its human resource capacity in the field of global health diplomacy through national-level training, involving echelon II officials and participants of the National Leadership Training (PKN).

This program aims to improve international negotiation and cross-sector coordination skills in addressing global health issues (sekjen kemenkes ri, 2025). However, amid the rapid development of health diplomacy and paradiplomacy practices, systematic research that inventories literature, policies, and documentation of activities is still very limited. A major gap is evident in the absence of a comprehensive bibliography mapping Indonesia's health diplomacy research and practices over the past five years. Most academic publications still focus on vaccine diplomacy during the pandemic, while long-term cooperation in the areas of hospital management, health worker capacity building, and health technology transfer has not been widely documented in a comprehensive knowledge map. A global bibliometric study by Subandi and Imsawati (2025) shows that of the 693 documents on health diplomacy indexed in Scopus, only a small portion discuss the Indonesian context in depth. This means that there is a gap in the literature that could serve as a reference for evidence-based policy formulation in the field of Indonesian health diplomacy. This gap is not only academic in nature, but also has practical implications. At the institutional level, collaboration between local governments and international partners often takes place without adequate documentation or a uniform evaluation framework.

For example, the cooperation between Ambon City and Vlissingen in establishing an eye clinic as a result of sister city cooperation has not been systematically recorded in the national policy database, even though it has been a sustainable practice of paradiplomacy since 2018 to date (mayaut Penina Fiolana, 2023). Similarly, the cooperation between the Provincial Government of DKI Jakarta and Berlin in handling the pandemic through the Smart Change project funded by the European Union in 2021 (Simorangkir, 2023). The lack of integrated academic documentation makes it difficult to track the results and impacts of such cooperation on improving the quality of public health in Indonesia. Based on this context, the compilation of the Indonesian Health Paradiplomacy Bibliography is a strategic step to fill the knowledge gap while providing

practical contributions to strengthening national health diplomacy. This study aims to identify trends, actors, themes, and patterns of cooperation in the literature and practice of Indonesian health paradiplomacy from 2020 to 2025. In addition, this study also aims to map how the relationship between regional health policies and national foreign policies has developed in the context of globalization.

The results of this bibliography are expected to serve as a scientific database that will assist policymakers, researchers, and educational institutions in understanding the direction of Indonesia's health diplomacy. Theoretically, this study is based on the concept of health diplomacy as described by (Kickbusch & Liu, 2022), which refers to diplomatic efforts to achieve political, economic, and social goals through the health sector. In the Indonesian context, health diplomacy is also seen as an instrument of soft power that affirms the country's commitment to human development and global solidarity. According to (drg. Widyawati, 2019), Indonesia needs to strengthen its health diplomacy capacity by improving its negotiation skills, policy research, and inter-agency coordination. This perspective forms the basis for the research framework, in which bibliography is not only a tool for compiling literature but also for assessing Indonesia's position in the global health diplomacy system. Furthermore, this research is based on the assumption that health diplomacy and paradiplomacy are interrelated in strengthening inclusive global health governance. Local governments, hospitals, and universities play an important role in building cross-border networks through sister cities, medical personnel training, and research exchanges.

This relationship shows that decentralization is not an obstacle, but an opportunity for Indonesia to expand health diplomacy from the local to the international level. By integrating research results, policy reports, and documentation of cooperation in the form of a systematic bibliography, this research will strengthen the understanding of how health paradiplomacy has developed as an integral part of Indonesia's national health diplomacy. Thus, the Indonesian Health Paradiplomacy Bibliography research has strategic value in two main dimensions: academic and policy. From an academic perspective, this research contributes to building a knowledge map that has been scattered across various publications and institutional documents. Meanwhile, from a policy perspective, the results can serve as a basis for decision-making to strengthen synergy between the central and regional governments in implementing effective, evidence-based, and globally oriented health diplomacy. In an era where health has become an integral part of security and diplomacy, studies such as this are an important step towards enabling Indonesia to play a stronger and more sustainable role on the international stage.

## **RESEARCH METHOD**

This research is part of an academic study focusing on the issue of paradiplomacy, particularly in the health sector. In the context of globalization and decentralization, paradiplomacy has become an important phenomenon to understand, especially when local governments or subnational entities begin to actively engage in international cooperation (Utomo, 2022). Therefore, this study was designed to analyze trends, themes, and patterns that emerged from various articles and news reports discussing paradiplomacy practices between 2015 and 2025.

### ***Type of Research***

This study uses a qualitative approach with a descriptive-analytical method (andika., 2023). This approach was chosen because it is suitable for understanding socio-political phenomena in depth based on non-numerical data. Qualitative research provides researchers with the flexibility to explore the meaning, context, and dynamics behind the practice of paradiplomacy that emerges

from written sources such as scientific articles and online news (Busetto et al., 2020). The descriptive-analytical method is used to describe the processes and patterns of paradiplomacy as recorded in secondary data (Aggarwal, 2025). Through this approach, the study not only explains the facts, but also attempts to interpret the content of documents related to paradiplomacy and the health sector.

### ***Subject and Object of Study***

The object of this study is articles and news reports discussing the topic of paradiplomacy over the last ten years, namely 2015–2025. This time frame was chosen based on the consideration that this decade has seen significant developments in the practice of paradiplomacy in various parts of the world, especially after the emergence of global issues such as the COVID-19 pandemic, which requires cross-border collaboration in the health sector (Kuestra et al., 2025). The subjects examined include various online sources, such as scientific journals, media reports, and relevant publications from governments and international institutions. From the initial search results, 65 articles and news items related to paradiplomacy in general were found. After further screening with a focus on “Health Paradiplomacy,” 13 articles that met the research criteria were obtained.

### ***Data Collection Techniques and Instruments***

Data was collected using documentation and online search methods (Cheong et al., 2023). The researchers used specific keywords to find relevant articles, namely “Paradiplomacy” for the initial stage and “Health Paradiplomacy” for the screening stage. The research instruments consisted of data recording sheets and content analysis forms, which were used to record the identity of the articles, year of publication, author, focus of discussion, and relevance of the topic to the theme of paradiplomacy.

In addition, digital tools such as academic search engines (Google Scholar, ResearchGate, and online news media) were also used to ensure that the sources used had academic credibility and relevance (Martin-martin et al., 2016). The data recording process was carried out systematically to maintain validity and consistency between sources. Each article was double-checked to ensure that there was no duplication or misinterpretation during the search process.

### ***Research Procedure***

The research procedure was organized into three main stages as illustrated in the group workflow chart:

#### ***Search Stage (Identification)***

In this stage, researchers searched for various articles and news items discussing paradiplomacy in general using the main keyword “Paradiplomacy.” From the initial search results, 65 articles and news items were identified as relevant to the main research theme.

#### ***Screening Stage (Screening)***

The next stage was the screening process based on a more specific focus of study, namely “Health Paradiplomacy.” At this stage, articles that were not directly related to health issues were eliminated. After screening, only 13 articles were found to meet the research topic criteria.

#### ***Eligibility Stage***

After screening, a final check was conducted to ensure full access to the articles. The final result showed that 13 articles were fully accessible and could be used as the main sources in the data analysis. These stages ensured that the data used was truly relevant, valid, and supported the research objective, namely to understand the role of paradiplomacy in the context of international cooperation in the field of health.

### *Data Analysis Techniques*

Data analysis was carried out using content analysis methods. This technique was used to examine the meaning contained in the text, find patterns or themes that emerged, and categorize important issues in the context of paradiplomacy. The steps in content analysis included: 1) Reading all articles that passed the eligibility stage thoroughly. 2) Identifying keywords, main themes, and the context of discussion in each article. 3) Grouping data based on categories such as: forms of paradiplomatic cooperation, actors involved, health policy issues, and the impact of regional policy internationalization. 4) Drawing conclusions about trends and the contribution of health paradiplomacy in contemporary international relations.

## **RESULTS AND DISCUSSION**

### **Research Results**

Figure 1.1 below shows a graph of the development of health paradiplomacy activities or publications by year. In 2020, the number of activities was still relatively low. In 2021, there was a significant increase, indicating the start of active cooperation and research in the health sector. In 2022, there was a slight decline, but it increased again in 2023. The upward trend continued in 2024 and peaked in 2025. Overall, this graph shows that during the 2020–2025 period, there was a steady increase in the practice and study of health paradiplomacy in Indonesia.

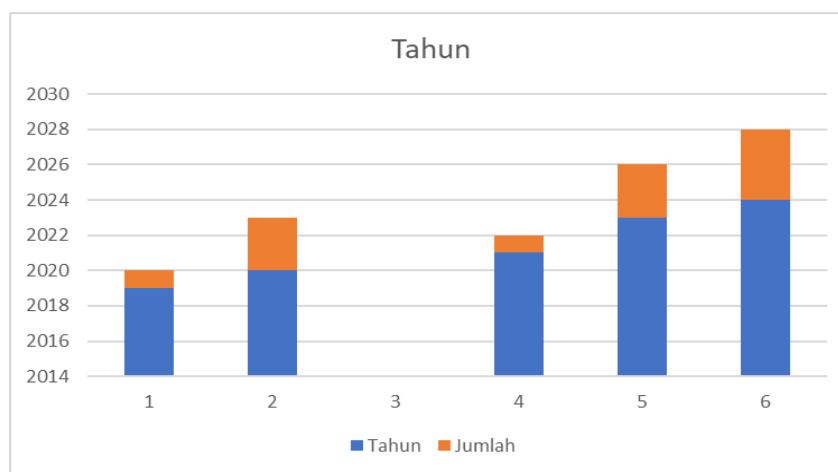


Figure 1.1 Online Media (year)

Figure 1.2 below is a horizontal bar graph showing the number of health paradiplomacy collaborations between Indonesia and several countries. Based on the graph, Japan ranks highest with the most cooperation, followed by Australia, Germany, and the United States. Meanwhile, countries such as the Netherlands, Russia, Bulgaria, and the United Kingdom show fewer collaborations. This data illustrates that Japan is the dominant partner in Indonesia's health

paradiplomacy activities, particularly in training programs, medical personnel exchanges, and health technology assistance.

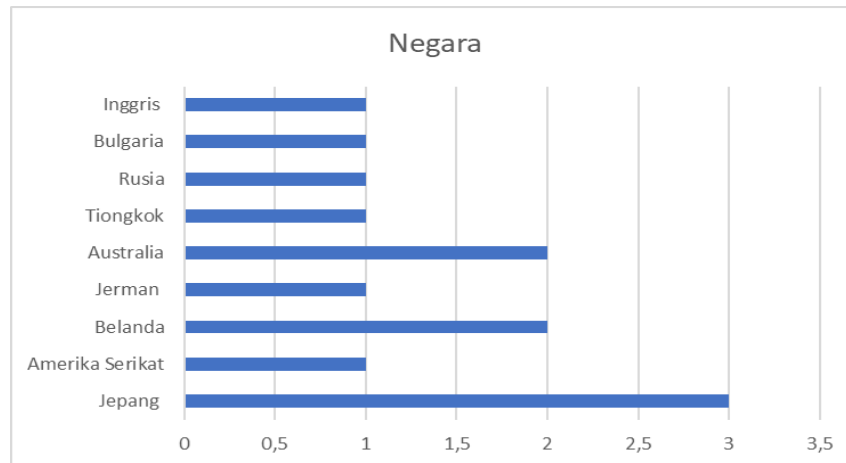


Figure 1.2 Country

Figure 1.3 below shows the involvement of various local actors. The data shows that the Regional Mayor has the highest role with a value of around 3, followed by the Regional Secretary with a value of 2. Meanwhile, actors such as the Regional Regent, Deputy Regent, Deputy Governor, and private companies have the same level of involvement, which is around 1. This shows that the roles of the Mayor and Regional Secretary are more dominant than other local actors.

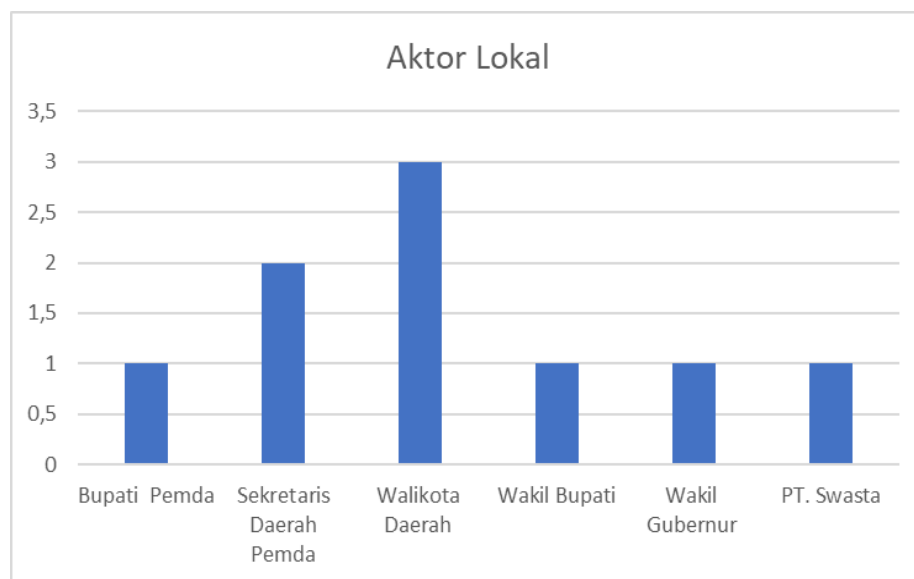


Figure 1.3 Local actors

Figure 1.4 below shows a list of media involved in disseminating information. All media, such as RadarBandung.ID, Petisi.co, RMOL.ID, Surabaya.id, and Jateng.antaranews.com, have the same level of involvement with a score of 1. This shows that each media outlet has an equal contribution in reporting or disseminating the issues observed.

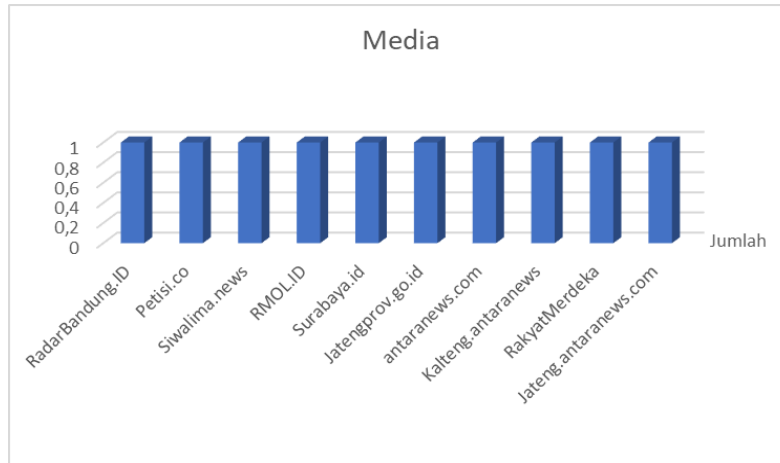


Figure 1.4 all social media

### Research Discussion

The results of the bibliographic analysis using Word Frequency Query show a strong tendency that research and literature related to health paradiplomacy in Indonesia focus heavily on public service issues and the role of regions in health diplomacy. Based on the word frequency table, the term “service” is the most dominant word with 87 occurrences (25.74%).



Figure 1.5 Word Frequency Query

This indicates that the service aspect is the main focus in the discussion of literature related to health paradiplomacy. In this context, “service” can be interpreted as a form of diplomacy implemented through improving the quality of public health services at the local, national, and



international levels. The word “state” ranks second with a frequency of 44 times (13.02%), followed by the word “region” with 38 times (11.24%). These two words show the close relationship between the central government (state) and regional governments in the practice of paradiplomacy. Health paradiplomacy basically involves not only central actors such as the Ministry of Foreign Affairs or the Ministry of Health, but also emphasizes the role of regions as active implementers of health diplomacy, especially in the context of cross-regional cooperation or subnational cooperation. This regional involvement can take the form of health information exchange, cross-border outbreak management, and medical facility cooperation between cities or provinces. Furthermore, the word “cooperation” appeared 20 times (5.92%), reinforcing the idea that cooperation is an important element in the implementation of health paradiplomacy. This form of cooperation includes collaboration between local governments and foreign parties, international institutions, and partner cities in sister city or sister province programs.

This is supported by the appearance of the word “sister” 13 times (3.85%), which shows a close relationship with the practice of sister city diplomacy as a concrete form of regional paradiplomacy in the health sector. The terms “quality” (4.73%), ‘logistics’ (2.66%), and “development” (2.37%) also play an important role in this context. These words indicate that improving the quality of health services, health logistics management (such as the distribution of medicines and medical equipment), and the development of health infrastructure are frequently discussed in the literature. This shows that health paradiplomacy not only highlights aspects of foreign relations but also includes strengthening the internal capacity of regions to be able to establish and maintain effective international cooperation. In addition, the word “diplomacy” (2.66%) emphasizes that the diplomatic dimension remains the main focus of discussion.

This word often appears alongside other terms such as “cooperation” and “country,” indicating that diplomatic activities in the health sector are carried out through collaborative mechanisms involving many actors across levels of government. Meanwhile, the words “solidarity” (2.07%), ‘innovation’ (1.78%), and “competence” (1.78%) describe the social values and human resource capacities that underlie the successful implementation of health paradiplomacy. “Solidarity” emphasizes the spirit of cooperation between regions in facing global health challenges, while ‘innovation’ and “competence” highlight the importance of developing regional capabilities in creating new solutions to strengthen health service systems. The emergence of the words “development” (1.78%), ‘infrastructure’ (0.30%), and “development” (2.37%) also indicates that the literature highlights the dimension of sustainable development. This is in line with the SDGs (Sustainable Development Goals), particularly the third goal on good health and well-being, and the eleventh goal on sustainable cities and communities. In the context of health paradiplomacy, development is defined not only as the provision of physical facilities, but also as the improvement of institutional capacity, health governance, and international networks.

Meanwhile, the emergence of the words “disease” (1.48%) and “event” (2.07%) shows that emergency health issues, such as epidemics and global health disasters, are also the focus of this study. Health paradiplomacy plays an important role in strengthening cross-border cooperation for mitigation and rapid response to health crises. When linked to word cloud visualization, these results reinforce the conclusion that the words “service,” “state,” and “region” are the largest, indicating the dominance of the themes of public service and the role of regions in health diplomacy. The color and size of other words such as “cooperation,” “quality,” “sister,” “solidarity,” and “development” also indicate high relevance in the formation of paradiplomacy networks. Overall, these findings show that Indonesia's health paradiplomacy bibliography highlights the role of regions in improving the quality of health services through international



cooperation based on solidarity and innovation. Paradiplomacy activities are not merely an alternative form of foreign relations, but rather an important strategy to strengthen the national health system through cross-regional and international collaboration. Thus, health paradiplomacy can be understood as an integral part of Indonesia's development diplomacy, which is oriented towards improving public services and global community welfare.

## CONCLUSION

Health paradiplomacy in Indonesia has evolved into an essential part of the national diplomacy ecosystem, showing steady and significant growth between 2020 and 2025. The results of this study conclude that these practices are focused on improving public services (the dominant term) and strengthening the role of regions through international cooperation. Subnational actors, especially regional mayors, are the most actively involved, while Japan is the most dominant international cooperation partner.

This conclusion validates the urgency of the research in the introduction, namely mapping literature and practices to provide practical contributions in strengthening national health diplomacy. The implication of this finding is the affirmation that decentralization is a strategic opportunity for Indonesia to expand its health diplomacy, functioning as an instrument of soft power that supports the achievement of the Sustainable Development Goals (SDGs). However, this study has limitations because it only analyzed 13 articles that met the criteria, reflecting the challenge of inadequate documentation of cooperation practices in the field.

Therefore, it is recommended that the central and regional governments strengthen the integrated cooperation database documentation system and improve human resource capacity in the field of health diplomacy in a sustainable manner. The next prospect is to conduct an in-depth case study to measure the quantitative impact of this cooperation and use the bibliographic results as a roadmap for developing a national health paradiplomacy policy evaluation framework.

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