

# Global Research Trends on Infant Mortality in Indigenous Communities: A Bibliometric Analysis

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## ABSTRACT

Persistent inequities in maternal and child health, access to health care, and socioeconomic status place Indigenous communities at a significant disadvantage when it comes to infant mortality and constitute a public health challenge of global significance. In this study, a bibliometric analysis of 150 open-access articles on infant mortality in Indigenous communities was conducted in the Scopus database from 2001 to 2026. The publication growth, influential journals, authors, countries, citation performance, collaborative networks, keyword co-occurrence, and thematic evolution were assessed through a bibliometric analysis conducted in RStudio using the Bibliometrix package. The results show that the number of scientific papers published is increasing steadily, with Australia, Canada, and the United States the leading countries in terms of published papers, citations, and international collaboration. The analysis also highlights the most influential journals, authors, and most-cited publications that

have shaped the field. The key research themes identified from keyword co-occurrence and thematic mapping include maternal and child health, health disparities, epidemiology, Indigenous populations, and social determinants of health, with recent increases in attention to health equity and culturally responsive health interventions. This research presents an in-depth analysis of the intellectual structure and evolution of research on Indigenous infant mortality and will be useful for researchers, health practitioners, and policymakers in developing evidence-based strategies to address health inequities and improve maternal and child health outcomes for Indigenous people.

**Keywords:** Infant mortality; Indigenous communities; Neonatal mortality; Child health; Bibliometric analysis

## 1. INTRODUCTION

Infant mortality, which is the death of a child before their first birthday, is an important measure of the health of a population and a good proxy for the quality

of maternal and child health services, socioeconomic status, and the performance of the health system (Khatri et al., 2022). While significant improvements have been achieved in mortality reduction during the last 30 years at the global level, preventable infant deaths continue to be a public health problem, especially for the socially and economically deprived groups (Bhatia et al., 2019). Persistent health inequalities such as poverty, inadequate maternal and neonatal health services, lack of access to quality health care, geographical isolation, poor living conditions, and historical and social marginalization have contributed to indigenous communities having a higher rate of infant mortality than non-Indigenous communities (Gamlin & Osrin, 2018). Numerous countries have reported these differences, including Australia, Canada, New Zealand, the United States, and low- and middle-income nations with Indigenous and tribal populations (Tungsanga et al., 2026; Panda et al., 2023). Eliminating infant mortality among Indigenous populations is crucial to achieving Sustainable Development Goal (SDG) 3, which aims to ensure healthy lives and promote well-being for all at all ages (Caldwell, 2025; Naik et al., 2025). The number of scientific publications in this domain has grown as well, and there is a demand to thoroughly analyze the production of scientific knowledge, analyze the impact of various authors, institutions, countries, collaboration networks, and new research themes. Bibliometric analysis is a powerful quantitative technique used to measure scientific productivity, citation impact, knowledge structure, and research trends in a given field (Kumar, 2025). While more research has been conducted on Indigenous and infant mortality issues, a comprehensive bibliometric analysis of the global scientific literature on the topic is lacking. Given this context, this study will attempt to identify trends in global research on infant mortality among Indigenous communities using bibliometric techniques based on Scopus-indexed publications.

## **OBJECTIVES**

1. To examine the global publication trends on infant mortality in Indigenous communities, including annual scientific output and growth of research.
2. To identify the most influential contributors in the field by analyzing leading authors, journals, countries, institutions, and highly cited publications.
3. To explore research collaboration patterns and thematic evolution through co-authorship, country collaboration, keyword co-occurrence, and thematic analysis to identify emerging research trends and future research directions.

## **2. LITERATURE REVIEW**

Previous studies have consistently reported that Indigenous populations experience higher infant mortality rates than non-Indigenous populations due to socioeconomic disadvantage, limited access to quality maternal and neonatal healthcare, geographic isolation, inadequate health infrastructure, and the lasting effects of historical marginalization (Serván-Mori et al., 2025). Research from countries such as Australia, Canada, New Zealand, and the United States has documented persistent disparities in maternal and infant health outcomes among Indigenous communities (Barrett et al., 2022). Consequently, increasing attention has been given to understanding the social determinants of infant mortality and developing culturally appropriate public health interventions to improve maternal and child health (Bartick & Tomori, 2018). Although bibliometric analysis is widely used to evaluate research trends, citation patterns, collaboration networks, and thematic developments, no comprehensive bibliometric study has systematically mapped the global research landscape on infant mortality in Indigenous communities (Dulla et al., 2021). Therefore, this study addresses this gap by providing a comprehensive bibliometric analysis of the Scopus-indexed literature, identifying publication trends, influential contributors,

collaboration networks, and emerging research themes in this field.

### 3. METHODOLOGY

#### 3.1 Data Collection, Search Strategy, and Inclusion Criteria

This bibliometric study used the Scopus database, a comprehensive collection of peer-reviewed scientific publications across various fields. We conducted a systematic literature search for publications about infant mortality among Indigenous communities. Relevant keywords were used, along with the Boolean operators, to develop the search strategy as follows: TITLE-ABS-KEY ("infant mortality" OR "neonatal mortality" OR "child mortality") AND (indigenous OR aboriginal OR "tribal population" OR "tribal health"). A first search found 460 documents.

Retrieved records were screened against predetermined inclusion criteria. First, the studies were limited to the subject areas of Medicine, Social Sciences, Nursing, and Health Professions, resulting in 418 documents. Only articles were included, resulting in a total of 313 articles. Only English-language articles were included (Total of 286 publications). Finally, for the analysis, 150 open-access articles were selected. The records (150) were exported from Scopus and subjected to analysis in RStudio, using the package Bibliometrix, which was used to analyze the publication trends, the citation impact, the authorship patterns, the productivity of the journals, the collaboration with countries and institutions, the co-occurrence of keywords, and the thematic evolution of the research on infant mortality in Indigenous communities.

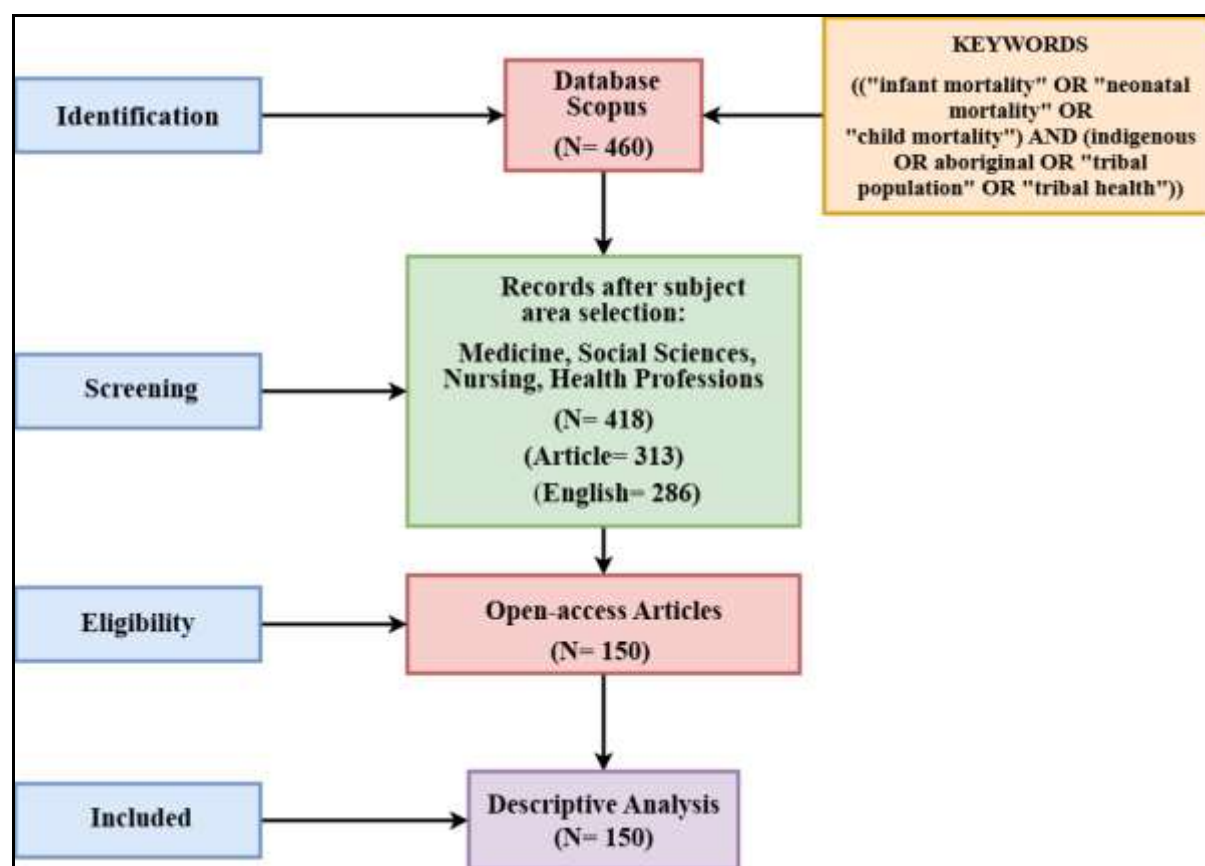


Figure 1 PRISMA Flow Diagram of the Study Selection Process

#### 3.2 Data Analysis

##### 3.2.1 Software

The bibliometric analysis was performed using RStudio (version 4.x) and the

Bibliometrix package, an open-source R package specially developed for detailed bibliometric analysis and science mapping. The dataset consisted of 150 open-access

articles extracted from the Scopus database in BibTeX format, which were used for data preprocessing and analysis with Bibliometrix. This software was used to assess annual scientific output, citation performance, authorship patterns, source productivity, country and institutional collaboration, and keyword occurrence. In addition, Bibliometrix was used to generate descriptive bibliometric indicators and science mapping techniques, such as co-authorship, co-occurrence, collaboration networks, and thematic evolution and analysis of the conceptual structure. The graphical visualization and statistical output generated by Bibliometrix enabled a detailed examination of global research trends on infant mortality among Indigenous people.

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Analysis

The descriptive features of the bibliometric data analyzed in this study are presented in Table 1. A total of 150 open-access articles were downloaded from 98 sources in the Scopus database between 2001 and 2026. The dataset shows an increase in scholarly interest in infant mortality in Indigenous communities, with an annual growth rate of 8.09%. The total citations (TC) for the publications were 3,032, and the average citations per publication (ACP) were 20.21, indicating a moderate level of academic impact. The dataset covered 714 authors, showing a wide range of authors engaged in research and collaboration. In addition, there was considerable international collaboration, with 37.33% of publications involving co-authorship with an

international researcher. The analysis also yielded 1,367 Keywords Plus and 481 author keywords, indicating the variety of research themes and topics covered in the literature. Overall, these descriptive indicators show the continued development, partnership building, and growing research attention around infant mortality in Indigenous communities.

**Table 1 Descriptive Analysis of Data**

| Description of data         | Results   |
|-----------------------------|-----------|
| Timespan                    | 2001:2026 |
| Sources                     | 98        |
| Documents                   | 150       |
| AGR                         | 8.09      |
| ACP                         | 20.21     |
| TC                          | 3032      |
| Keyword plus                | 1367      |
| Authors keywords            | 481       |
| Total authors               | 714       |
| International co-authorship | 37.33     |

Source: Compiled by Authors

### 4.2 Top Contributing Journal

Table 2 shows the most-cited journals on infant mortality in Indigenous communities. The top five journals are the International Journal of Environmental Research and Public Health (8 publications) and the International Journal of Circumpolar Health (5 publications), with the International Journal of Pregnancy and Childbirth coming in at BMC Pregnancy and Childbirth (5 publications). The Social Science and Medicine has the highest citation count (71), and The Lancet Regional Health – Americas has the highest m-index (1.0) with fast research impact. These journals are the primary sources for high-quality research on Indigenous maternal and child health, health disparities, and public health interventions.

**Table 2 Top Relevant Journals**

| S.L. No | List of Journals                                                  | PC | TC | ACP | FPY  | LPY  | h index | g index | m index |
|---------|-------------------------------------------------------------------|----|----|-----|------|------|---------|---------|---------|
| 1       | INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH | 8  | 54 |     | 2016 | 2026 | 5       | 7       | 0.455   |
| 2       | INTERNATIONAL JOURNAL OF CIRCUMPOLAR HEALTH                       | 5  | 58 |     | 2011 | 2026 | 4       | 5       | 0.25    |
| 3       | BMC PREGNANCY AND CHILDBIRTH                                      | 5  | 55 |     | 2012 | 2026 | 3       | 5       | 0.2     |

|    |                                                     |   |    |  |      |      |   |   |       |
|----|-----------------------------------------------------|---|----|--|------|------|---|---|-------|
| 4  | CADERNOS DE SAUDE PUBLICA                           | 4 | 51 |  | 2007 | 2026 | 4 | 4 | 0.2   |
| 5  | CANADIAN JOURNAL OF PUBLIC HEALTH                   | 4 | 48 |  | 2009 | 2026 | 4 | 4 | 0.222 |
| 6  | INTERNATIONAL JOURNAL FOR EQUITY IN HEALTH          | 4 | 55 |  | 2014 | 2026 | 4 | 4 | 0.308 |
| 7  | THE LANCET REGIONAL HEALTH - AMERICAS               | 4 | 40 |  | 2023 | 2026 | 4 | 4 | 1     |
| 8  | AUSTRALIAN AND NEW ZEALAND JOURNAL OF PUBLIC HEALTH | 3 | 31 |  | 2003 | 2026 | 3 | 3 | 0.125 |
| 9  | FRONTIERS IN PUBLIC HEALTH                          | 3 | 31 |  | 2016 | 2026 | 3 | 3 | 0.273 |
| 10 | SOCIAL SCIENCE AND MEDICINE                         | 4 | 71 |  | 2014 | 2026 | 3 | 4 | 0.231 |

*Source: Compiled by Authors*

### 4.3 Prominent Authors

The most influential authors in infant mortality in Indigenous communities were identified by analyzing their publication and citation activity (Table 3). The most productive author is Luo Z-C with 7 publications and 195 total citations, and the highest citation impact is with Axelsson P (882 citations and 294 ACP). Santos RV also exhibits a high research influence (871 citations). Together with Luo Z-C, Karlsson L has the highest h-index, at 6, among

researchers in the field of the Sustainable Development Goals. Karlsson L has the highest h-index of 6, along with Luo Z-C, in terms of research productivity and sustained impact. In addition, Barreto ML and Rodrigues LC had the highest m-index (0.6), showing a fast increase in research impact. Overall, these authors have provided important work in the fields of Indigenous infant mortality, maternal and child health, and health disparities.

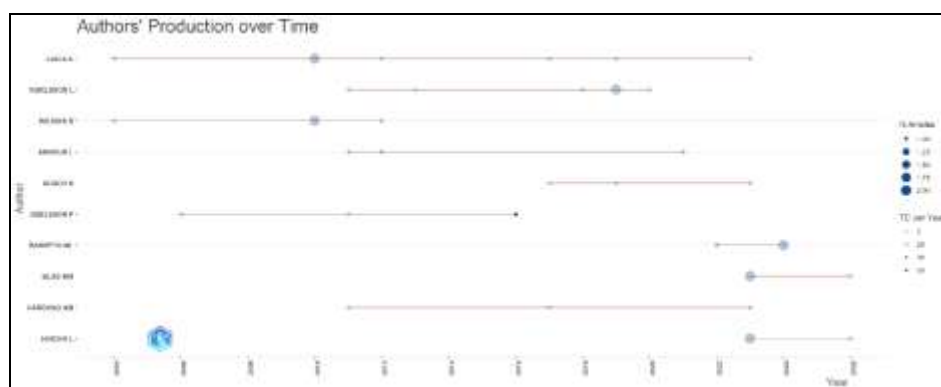
*Table 3 Influential Authors*

| Prominent Authors | PC | TC  | ACP | FPY  | LPY  | h-index | g-index | m-index |
|-------------------|----|-----|-----|------|------|---------|---------|---------|
| KARLSSON L        | 6  | 72  | 12  | 2011 | 2026 | 6       | 6       | 0.375   |
| LUO Z-C           | 7  | 195 | 28  | 2004 | 2026 | 6       | 7       | 0.261   |
| WILKINS R         | 4  | 147 | 37  | 2004 | 2026 | 4       | 4       | 0.174   |
| ARBOUR L          | 3  | 54  | 18  | 2011 | 2026 | 3       | 3       | 0.188   |
| AXELSSON P        | 3  | 882 | 294 | 2006 | 2026 | 3       | 3       | 0.143   |
| BARRETO ML        | 3  | 61  | 20  | 2022 | 2026 | 3       | 3       | 0.6     |
| CARDOSO AM        | 3  | 36  | 12  | 2011 | 2026 | 3       | 3       | 0.188   |
| KRAMER MS         | 3  | 77  | 26  | 2004 | 2026 | 3       | 3       | 0.13    |
| RODRIGUES LC      | 3  | 61  | 20  | 2022 | 2026 | 3       | 3       | 0.6     |
| SANTOS RV         | 3  | 871 | 290 | 2011 | 2026 | 3       | 3       | 0.188   |

*Source: Compiled by Authors*

Figure 2 shows the trends in publications by the most influential authors in infant mortality in Indigenous communities over time. Luo Z-C has the longest and most continuous research contribution, with papers published from 2004 to 2023. Karlsson L and Wilkins R remained active in the field for some time, conducting ongoing research. The authors Barreto ML,

Rodrigues LC, and Silas MM published after 2022, with most of their publications showing the researchers' emerging interest in the theme. The overall figure demonstrates the cross-over representation of both established and emerging researchers working to advance knowledge and understanding of Indigenous infant mortality and maternal and child health.



Source: Compiled by Authors  
Figure 2 Author's Production over time

#### 4.4 Top Producing Countries

Countries most relevant to infant mortality research in Indigenous communities are shown in Table 4. Australia is the most productive and influential country in this research area, with 26 publications and a cumulative number of citations of 1,234. Fourteen publications and 428 citations come from Canada, while 19 publications and 308 citations come from the United

States. New Zealand had only five publications, but the impact of its research was high, as evidenced by the high average citation per paper (ACP = 39.40). Overall, the results indicate that countries with sizable Indigenous communities, such as Australia, Canada, the United States, and New Zealand, have contributed most to the progress of research on Indigenous infant deaths and maternal and child health.

Table 4 Most Relevant Countries and Its Correspondence

| Country        | PC | TC   | ACP   | FPY  | LPY  |
|----------------|----|------|-------|------|------|
| Australia      | 26 | 1234 | 47.50 | 2001 | 2026 |
| Canada         | 23 | 428  | 18.60 | 2001 | 2026 |
| Usa            | 19 | 308  | 16.20 | 2001 | 2026 |
| Brazil         | 14 | 213  | 15.20 | 2001 | 2026 |
| Newzealand     | 5  | 197  | 39.40 | 2001 | 2026 |
| Sweden         | 8  | 112  | 14.00 | 2001 | 2026 |
| United Kingdom | 10 | 89   | 8.90  | 2001 | 2026 |
| Netherlands    | 3  | 86   | 28.70 | 2001 | 2026 |
| India          | 10 | 48   | 4.80  | 2001 | 2026 |
| Ethiopia       | 2  | 33   | 16.50 | 2001 | 2026 |
| Australia      | 26 | 1234 | 47.50 | 2001 | 2026 |
| Canada         | 23 | 428  | 18.60 | 2001 | 2026 |
| Usa            | 19 | 308  | 16.20 | 2001 | 2026 |
| Brazil         | 14 | 213  | 15.20 | 2001 | 2026 |
| Newzealand     | 5  | 197  | 39.40 | 2001 | 2026 |
| Sweden         | 8  | 112  | 14.00 | 2001 | 2026 |
| United Kingdom | 10 | 89   | 8.90  | 2001 | 2026 |

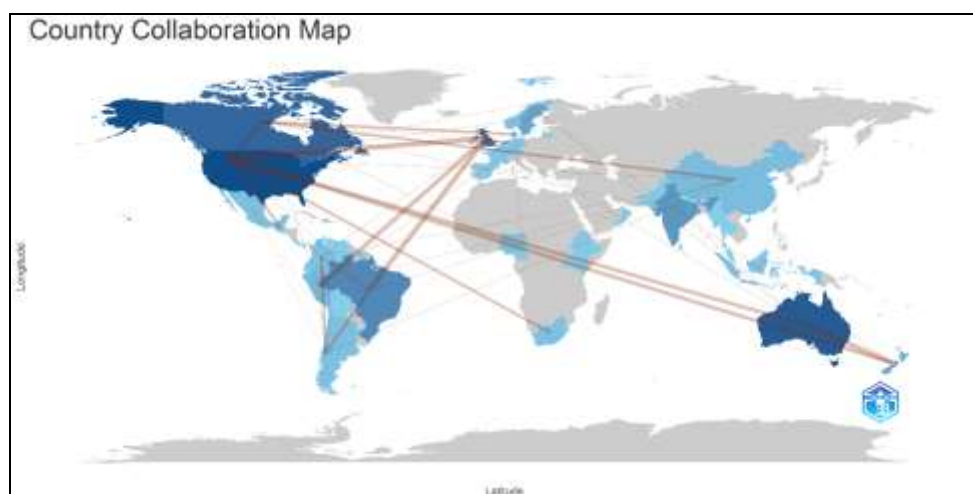
Source: Compiled by Authors

#### 4.5 Country Collaboration

Figure 3 shows the international collaboration network between countries that have published research on infant mortality in Indigenous communities. The map shows that Australia, Canada, and the United States are the key collaboration centres, with robust research connections to

a number of European, South American, Asian, and Oceania nations. Significant linkages are also seen between Australia and New Zealand, and among Canada, the United Kingdom, and European countries. The partnerships illustrate the international character of Indigenous health research and the need for cross-country collaborations to

help eliminate disparities in infant mortality and promote maternal and child health.



Source: Compiled by Authors  
Figure 3 Country Collaboration

#### 4.6 Content Analysis of Most Global Cited Documents

These 10 highly cited publications have collectively received 1,405 citations, demonstrating their substantial influence on the field of infant mortality in Indigenous communities. Table 5 outlines the major

contributions of these studies and identifies key directions for future research, emphasizing the reduction of health disparities, the strengthening of Indigenous health systems, and the improvement of maternal and child health outcomes.

Table 5 Top 10 Global Cited Documents

| Document                | Source (DOI)                                                    | TC  | Major Contributions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|-----------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Anderson et al., 2016) | The Lancet<br>(10.1016/S0140-6736(16)00345-7)                   | 833 | This study offers a detailed overview of the health and social situation of indigenous and tribal populations from 23 countries. It emphasizes the stark inequalities in health, education and economic status that exist between Indigenous and non-Indigenous people. The findings confirm the importance of building capacity for targeted government policies, improved access to health care, and stronger Indigenous data systems to help close inequalities and meet the UN Sustainable Development Goals (SDGs).                     |
| (Bramley et al., 2005)  | American Journal of Public Health<br>(10.2105/AJPH.2004.040907) | 134 | The aim of this study is to conduct a comparative analysis of health disparities between Indigenous New Zealanders and Indigenous people in the United States, using several health indicators. It points to major disparities in health outcomes, access to health services, and risk factors, and reveals effective actions, such as enhanced vaccination rates in the United States. The study also highlights the need for strong Indigenous health data systems and evidence-based policies to close health inequities and disparities. |
| (Kildea et al., 2019)   | Journal of Business Research<br>(10.1016/j.jbusres.2021.12.011) | 78  | This study establishes and validates the relationships among institutional pressures, eco-innovation, Green Supply Chain Management (GSCM), Circular Economy (CE) capability, and firm performance in manufacturing SMEs. It                                                                                                                                                                                                                                                                                                                 |

|                                     |                                                                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |                                                                        |    | provides evidence that institutional pressures foster eco-innovation, thereby enhancing GSCM practices and CE capability. The study also emphasizes the moderating effect of big data-driven supply chains on the relationship between CE capability and firm performance, offering valuable insights for improving sustainability and CE practices in SMEs.                                                                                                                                                                                                                              |
| <b>(Luo et al., 2010)</b>           | Canadian Medical Association Journal<br>(10.1503/cmaj.082042)          | 60 | This study provides detailed evidence of marked differences in the health of mother and infant between Inuit-inhabited regions and the rest of Canada. It points to significantly higher levels of premature birth, stillbirth, and infant mortality when compared to other rural and northern areas. The results highlight the critical need for targeted public health interventions and policies to enhance maternal and infant health in Inuit communities.                                                                                                                           |
| <b>(Franklin et al., 2017)</b>      | Archives of Disease in Childhood<br>(10.1136/archdischild-2017-312684) | 56 | This research illustrates that epilepsy is a very strong risk factor for childhood drowning, while the majority of pre-existing medical conditions do not markedly affect the risk of drowning. It emphasizes the need to take specific steps to keep water safe, and to supervise the safe participation of children with medical conditions such as epilepsy in aquatic activities.                                                                                                                                                                                                     |
| <b>(Luo, 2004)</b>                  | International Journal of Epidemiology<br>(10.1093/ije/dyh290)          | 53 | This research explores 20-year trends in infant mortality differences between urban and rural First Nations (FN) and non-FN populations in BC. It demonstrates that the disparities decreased more consistently in rural areas than in urban areas and highlights that preterm birth is a significant driver of the disparities in neonatal mortality. The results highlight the importance of maternal and infant health interventions to First Nations families, specifically in urban communities.                                                                                     |
| <b>(Bartick &amp; Tomori, 2018)</b> | Maternal and Child Nutrition<br>(10.1111/mcn.12652)                    | 52 | In this study, the perspective of the individual behavioural risk factors is replaced by a social and structural perspective on the understanding of sudden unexpected infant death (SUID) and sudden infant death syndrome (SIDS). It shows that poverty, discrimination, and historical trauma play a role in the increased likelihood of SUID/SIDS in Indigenous and marginalized communities and highlights the importance of promoting an equitable public health approach, better prenatal care, smoking cessation, breastfeeding support, and culturally responsive interventions. |
| <b>(Veile et al., 2013)</b>         | Social Science & Medicine<br>(10.1016/j.socscimed.2013.10.034)         | 48 | This study demonstrates that breastfeeding among the Tsimane remains intensive even amid modernization. It points out that differences in breastfeeding experiences among traditional communities are more likely attributable to regional variation than to maternal age or market access, suggesting region-specific interventions to promote optimal breastfeeding in these communities.                                                                                                                                                                                               |
| <b>(Schulpen, 2001)</b>             | Archives of Disease in Childhood<br>(10.1136/ad.84.3.222)              | 47 | This study identifies significant ethnic disparities in perinatal and child mortality in the Netherlands, showing that minority groups experience higher mortality rates than the indigenous Dutch population. It demonstrates that preterm birth, socioeconomic conditions, and sociocultural factors                                                                                                                                                                                                                                                                                    |

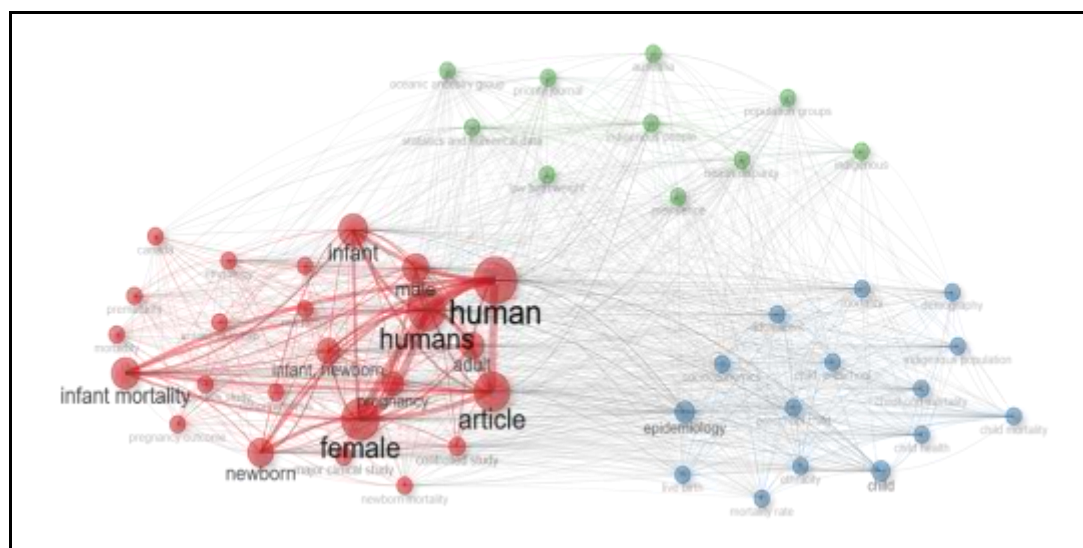
|                                |                                                           |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------|-----------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                           |    | contribute to these disparities, highlighting the need for targeted maternal and child health policies to reduce ethnic inequalities.                                                                                                                                                                                                                                                                                                                   |
| <b>(Rebouças et al., 2022)</b> | The Lancet Global Health (10.1016/S2214-109X (22)00333-3) | 44 | This study shows that there are important ethnoracial disparities in under-five infant mortality in Brazil, with children of Indigenous and Black mothers having significantly increased risks compared with children of White mothers. It identifies racism as an important social determinant of child health, and calls for ongoing surveillance and equity-focused public health policies to decrease child deaths and improve ethnocracies equity. |

**Note: TC: Total Citations**  
**Source: Compiled by Authors**

#### 4.7 Co-occurrence network

Figure 4 shows the co-occurrence network of the keywords from studies on infant mortality among Indigenous populations. The network is structured into three main clusters that reflect the main research fields. The red cluster focuses on maternal and infant health, with keywords such as human, humans, infant, female, male, pregnancy, and newborn. Public health and epidemiological aspects are highlighted in blue, including epidemiology, child,

preschool child, socioeconomics, and Indigenous peoples. The green cluster highlights demographic and mortality issues, including birth weight and medical information. The high number of interconnections among the clusters highlights the multidisciplinary nature of Indigenous infant mortality research to enhance understanding and reduce health disparities, incorporating maternal and child health, epidemiology, social determinants, and population health.



*Source: Compiled by Authors*  
**Figure 4 Co-occurrence Network Map**

## 4.8 Prominent Keywords

The keyword cloud for research on infant mortality in Indigenous communities is presented in Figure 5, where the size of each keyword indicates how often it appears in the literature. The most obvious keywords

are human and humans, female and infant mortality, article, infant, newborn, and male, implying the literature on maternal and infant health. Other common words, like "Indigenous people," "epidemiology," "pregnancy," "child mortality," "controlled

study," and "cohort analysis," underline the focus on health inequalities, epidemiological studies, and maternal and child health outcomes among Indigenous peoples. Overall, the word cloud illustrates

that research in this area is focused on understanding the factors that contribute to infant mortality and creating evidence-based strategies for better Indigenous maternal and child outcomes.

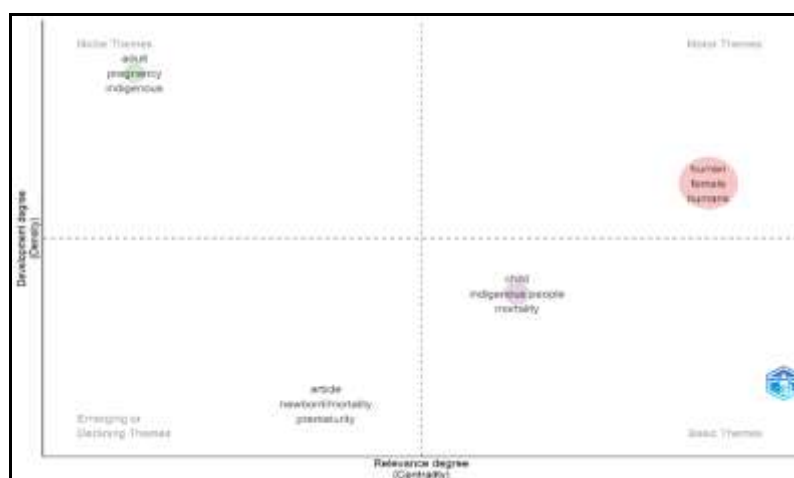


Source: Compiled by Authors  
Figure 5 Keyword Cloud

#### 4.9 Thematic map analysis

Figure 6 shows the thematic map of research on infant mortality in Indigenous communities, based on the centrality (relevance) and density (development) of research themes. The keywords human, humans, and female dominate the motor themes quadrant, suggesting these are well-developed and have a strong influence on research in the field. The literature centers on the basic themes of children, Indigenous people, and mortality, which are the key concepts underlying it. The niche themes

are fairly developed and have relatively few linkages with the other research areas (adult, pregnancy, indigenous). Lastly, emerging and declining trends are observed in the fields of article mortality, newborn mortality, and prematurity, which may indicate fields ripe for additional research or that receive less attention than other fields. In general, the thematic map reflects shifts in research priorities and highlights areas for future research on infant mortality among Indigenous peoples.



Source: Compiled by Authors  
Figure 6 Thematic Analysis

## 5. Findings

This bibliometric review shows a consistently increasing body of research around infant mortality in Indigenous populations across the world, reflecting greater scholarly interest in this public health concern. Australia, Canada and the USA were the top three contributors for publications, citations and international collaboration, indicating high levels of research activity in Indigenous maternal and child health in these countries. The analysis identified authors, journals, and highly cited publications that have influenced the knowledge base of this field. Thematic analysis and keyword co-occurrence revealed that research is predominantly focused on maternal and infant health, health disparities, epidemiology, social determinants of health, and Indigenous populations. The results also show an increase in international connections and the development of new research areas related to health equity, culturally responsive health care, and evidence-based public health interventions. In general, the study offers an overview of the intellectual terrain and the evolution of research on infant mortality in Indigenous communities.

## 6. Limitations

There are several limitations to this study. First, the analysis has only been carried out in Scopus, meaning that publications relevant to the analysis but not indexed in this database, such as those in other databases such as Web of Science, PubMed, or Dimensions, are not included. Second, a search of English-language, open-access articles was conducted, which might have resulted in the overlooking of important studies written in other languages or in subscription journals. Third, the quality of the publications and impact of the science may be compromised by the indicators used. Lastly, the results depend on the search strategy used and the dataset's time frame.

## 7. CONCLUSIONS

This study offers an extensive bibliometric review of global research on infant mortality in Indigenous communities, as captured in publications indexed in Scopus. The results suggest that scientific production is gradually increasing and reflects a rising global interest in finding solutions to the health inequalities faced by Indigenous peoples. Australia, Canada, and the United States were the top countries in publishing, citing, and working on international research, and a number of key authors, journals, and highly cited papers have played a significant role in the evolution of this research area. Maternal and child health, epidemiology, health inequalities, social determinants of health, and culturally appropriate health interventions emerged as the major themes of the research, based on keywords and their co-occurrence, as well as thematic analysis. In summary, this study advances the body of knowledge on the intellectual structure and development of research on Indigenous infant mortality; highlights key researchers and new research directions; and offers important information for researchers, health service professionals, and policy makers. The results also highlight the need to increase international cooperation, ensure evidence-informed and culturally responsive health policies, and increase research on infant mortality to enhance quality of maternal and child health outcomes for Indigenous peoples globally.

## 8. Suggestions for future research

Future research should expand bibliometric analyses by incorporating multiple databases such as Web of Science, PubMed, and Dimensions to provide broader coverage of the literature (Schulpen, 2001; Rebouças et al., 2022). Greater attention should be given to research in low- and middle-income countries with Indigenous populations, where evidence remains limited. Future studies should also explore emerging topics, including the impact of climate change, digital health technologies, health policy, and community-led

interventions on Indigenous maternal and infant health (Bartick & Tomori, 2018). Strengthening international collaboration and promoting culturally responsive, evidence-based research will be essential to reducing health inequalities and achieving sustainable reductions in infant mortality among Indigenous communities (Luo et al., 2010).

### Declaration by Authors

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