François Roger
Marie-Marie Olive
Marisa Peyre
Dirk Pfeiffer
Jakob Zinsstag, eds



Quæ

## Publishing One Health: evolving global patterns

François Roger, Marie-Christine Lambert, Émilie Chirouze

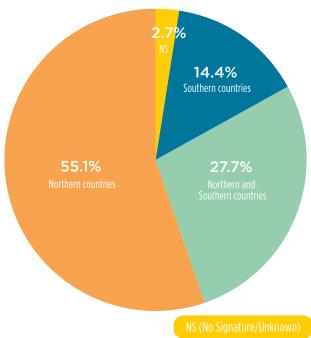
n analysis of scientific publications related to One Health between 2004 and 2022 was carried out on a data set from the Web of Science (WoS) and MEDLINE databases (query date: 22 February 2023). A total of 3,498 articles were selected following keyword searches by authors, Medical Subject Headings (MeSH) terms from MEDLINE, and keywords generated by WoS algorithms. The selected terms were "One Health", "EcoHealth" and "Planetary Health". Figure 1 shows the annual evolution of the number of publications.

Several major pandemics that occurred during this period are highlighted: the H1N1 influenza pandemic (2009-2010), the Ebola outbreak (2014-2016 in West Africa), MERS-CoV (since 2012) and the COVID-19 pandemic (since late 2019). Key milestones are also featured: the first international One Health conference in 2004, commonly known as the "Manhattan Conference", and the 2011 Berlin conference, which brought together scientists and policymakers. Since 2011, the World One Health Congress (https://globalohc.org/) has emerged as a major event, with its eighth edition in 2024.

The results show a notable increase in publications mentioning the terms "One Health" or "Planetary Health" over the past two decades. Major pandemics caused by zoonotic diseases, international conferences and decisions by international organizations have had a decisive impact on the scientific community and its research in these areas, with post-pandemic funding also likely having an effect. Before this period, the SARS (2002-2003) and H5N1 avian influenza (starting in 2003) crises were major catalysts that demonstrated the need for an integrated approach to address global health challenges. These crises underscored the importance of interdisciplinary collaboration and laid the groundwork for the adoption of the One Health concept and its institutionalization by scientists.

Figure 2 illustrates the geographical distribution of One Health publications. An analysis of co-publications by continent shows that Europe and North America are the most prolific regions publishing on these topics, along with several of the BRICS countries (Brazil, India, China and South Africa). Europe, as a whole, stands out, likely due to research policies oriented towards an integrated vision of global health and development cooperation in the Global South. Figure 3 shows a high concentration of publications in Global North countries, with significant interactions between the North and South regions, but relatively fewer studies exclusively focused on the Global South.

This brief analysis—non-exhaustive and trend-focused—highlights not only the evolution of research in the One Health domain and related concepts but also the geographical and economic disparities in scientific production. It draws attention to the importance of strengthening research capacities in underrepresented regions.



**Figure 3.** Distribution between Global North and Global South countries (based on the affiliations of the authors of the papers).

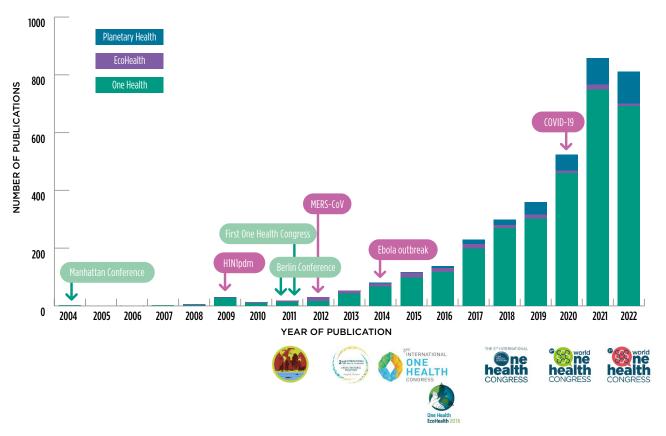
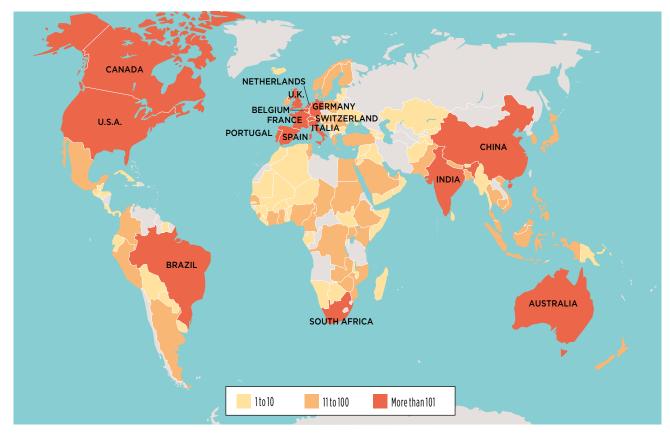


Figure 1. Evolution of scientific publications from 2004 to 2022 for the keywords "One Health", "EcoHealth" and "Planetary Health".

The decline observed in 2022 for One Health is likely not due to a lack of interest in these topics but rather a combination of several factors: delays in the publication process (data extracted in early 2023), a redeployment of research resources as the health crisis subsided, and the natural variability of scientific output.



**Figure 2.** Geographical distribution of publications with "One Health" as a keyword.

Many scientific articles are international collaborations, meaning that a single article may be connected to several countries depending on the authors' affiliated institutions. Each country associated with an article has been counted, which means the total number of publications per country exceeds the total number of articles analysed.