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Editorial Commentary

Calling for a planetary and one health vision for global health

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COVID-19 has been considered as the latest 'Disease X', which is a term used by the WHO to describe 'a serious international epidemic caused by a pathogen currently unknown to cause human disease'. As foreseen, it ravaged human populations and economies. Despite several warnings and lessons from previous outbreaks, various national and global leaders failed to take the necessary precautionary measures. Had they done so, the risks and impacts of the pandemic would have been greatly reduced. We – national and international scientists, politicians, mass media, activists – collectively failed in binding science, health care, economics, and politics.

The explanations for this failure reside in competing narratives about how health related knowledge and interventions should be considered in the 21st century. The most cited of these narratives are labelled as Global Health, One Health and Planetary Health. They all consider that contemporary societies are inherently intertwined at the global scale through politics, economics, population mobility, cultural exchanges and health related issues. These narratives also share the understanding that health and well-being are part of collective goals to be achieved by organized efforts reflected in the Agenda 2030 and the Sustainable Development Goals [8]. There is a growing recognition that many of the health problems interact syndemically [7], emphasizing, again, the relevance of a vast array of factors in the health of individuals and populations.

Our use of the expression 'labelled' to address the three major narratives identified is not naïve. It highlights variable ways in which the same fields of knowledge become institutionalized in academia and the literature, hence creating barriers to develop shared meanings, purposes, and outcomes.

The first use of the label "Global Health" appeared in WHO pamphlet "The WHO: Its Global Battle Against Disease" in 1958. Later, the acquired immunodeficiency syndrome (AIDS) pandemic provided the underpinning for the revolution that overturned traditional approaches to international health, replacing them with innovative global approaches to health [2]. Nevertheless, "global health" as a concept has proven difficult to define, and it acknowledged that "without an accepted definition of global health, it will be difficult to agree on what global health is trying to achieve and how progress will be made and monitored" [1]. Today, regardless of nuanced understandings, Global Health builds on acknowledging health as a global public good and as a key component of human rights, equity, sustainability, and security. Accordingly, health issues are assumed to transcend national boundaries, hence the need to call for actions on the global forces to ensure health and well-being in low-, middle- and high-income countries. New forms of governance at the national and international level are necessary to include a wide range of public, private, and civil society actors. In short, as health determinants cross borders in the sense that they embrace different countries and regions, the solutions also should cross them.

However, in the wake of recent epidemics, it became more and more visible the extent to which the health of people, wild and domesticated animals, and natural living systems are syndemically connected, and that this interplay, well within the scope of Global Health, is also a pillar of the concept of One Health [6].

One Health enables the development of transdisciplinary explanations of health and disease occurrence through a comprehensive study of humans, animals and plants ecosystems and their social and/or environmental contexts. Regardless of previous contributions, the scientific roots of this concept can be linked with Edward Jenner in the XVIII century and to Louis Pasteur, Robert Koch, Rudolph Virchow and William Osler in the late nineteenth century. Its contemporary revival was boosted by several initiatives including the 'One World, One Health symposium' in 2004 held by the Wildlife Conservation Society. Through the outbreaks of Ebola, Avian Influenza, and Chronic Wasting Disease, the symposium reflected on current and potential movements of diseases among human, domestic animal, and wildlife populations. The symposium gave birth to the "Manhattan Principles" [10]. These detailed a collaborative, trans-disciplinary approach, coined 'One World - One Health', or simply 'One Health'. More recently, the Manhattan Principles were revisited in the conference 'One Planet, One Health, One Future' held in 2019, which approved a Call to Action named the "Berlin

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Principles on One Health". These principles build on the notions of ecosystemic health and integrity, and address emergent issues, such as pathogen spillover, climate change, and antimicrobial resistance.

Despite its growing acceptance, One Health has been criticized for the excessive focus on emerging zoonotic diseases, inadequate incorporation of environmental concepts and expertise, and insufficient incorporation of social science and behavioral aspects of health and governance. Indeed, criticism is raised about the persistence of scientific silos between human and animal sectors, and little attention is given to environmental health [5].

This criticism came alongside the growing perception that Global Health is overly narrow to take into account the natural foundation on which humans live or to factor in the force and fragility of human civilizations. This led to a commentary in the March 2014 issue of the The Lancet calling to create a movement for Planetary Health [4].

This concept was further systematized by the Rockefeller Foundation-Lancet Commission report in 2015: Safeguarding Human Health in the Anthropocene Epoch. This report delineated the degree to which human activities have degraded the earth's ecosystems to the extent of threatening basic life support services. The threats include greenhouse gases and resulting climate change, extreme weather events, deforestation, desertification, ocean acidification, zoonotic disease outbreaks, biodiversity loss and particulate air pollution. The report concludes that these human-induced issues represent pressing hazards to human health, well-being and sustainability, and calls for immediate attention to critical multidisciplinary research, and evidence-based policy formulation and timely implementation. The report produced a number of Planetary Health efforts, namely the development of a Planetary Health Alliance, an annual Planetary Health conference and a new journal dedicated to the topic.

The report defined planetary health as "the health of human civilizations and the natural systems on which they depend". It aims not only to investigate the effects of environmental change on human health, but also to study the political, economic, and social systems that govern those effects. It challenges us to rethink the way we reason about the planet needs, as well as the approaches we take in interacting with it [9].

It is therefore clear the extent to which the debate on the complex nature of Global Health has evolved and flourished around different attributes captured by different labels. Recalling an argument at the outset of this editorial, the institutionalization of scientific fields needs to be perceived as a sociopolitical process, which result in diversified understandings, purposes and outcomes of the same labels. This means that although Global, One and Planetary Health may be acknowledged through relatively stable principles such as those highlighted here, polysemic and nuanced definitions raise conceptual boundaries that undermine the clear understanding of their connectedness.

For us the question is not which of the three conceptual frameworks - Global Health or One Health or Planetary Health – best suits pandemic prevention and sustainable development. Rather, the question is if the concepts and related frameworks of Global, One and Planetary Health should stand as independent responses from each other to address the complex nature of the health problems and their determinants, as outlined by the 2030 agenda for sustainable development, or if we should aim at a progressive conceptual convergence and a wide and deep-rooted commitment to inter- and transdisciplinary actions around the Sustainable Development Goals.

Our understanding is clear that Global Health should stand as an overarching concept embracing the attributes of One and Planetary Health. The outcome is a conceptual understanding of Global Health with a broad perspective concerned with the syndemic effects of environmental change on human and animal health, but also to study the political, economic, and social systems that govern those effects. We argue therefore for fostering a Planetary and One Health vision for Global Health.

By doing so, health and wellbeing-related problems are assumed to have a political nature, notably that policies are likely to collectively shape individual behaviours and ways of life. Possession of goods, dietary habits, population dynamics in remote and urban spaces are well accepted examples either in the debate, or in the argument, although new developments and insights seem to disregard the need to ensure conceptual integrity and shared definitions. This seems to have happened as the concepts of Global, One and Planetary Health- spread out in the debate. Consequently, the debate around these concepts has been more focused on raising artificial academic boundaries than it has contributed to make change effective.

Arguing for a Planetary and One Health vision for Global Health intends to pacify the debate and move forward with effective decision-making to improve the population health and wellbeing across the globe. Conceptually it emphasizes: 1) that health and wellbeing mean the fulfillment of individual needs in the context of wider inequalities (economic, cultural, gender-based, ethnical and religious); 2) the extent to which individuals build their own life expectations in close relationship with collective preferences, 3) that collective preferences are politically manageable, and 4) that policies aimed at coping with the UN Agenda 2030 and the Sustainable Development Goals cannot be pursued unless policy design, implementation and evaluation reflect the ecosystemic health and integrity principle shared by One and Planetary Health.

The extent to which in the future One and Planetary Health core principles will become more effective in decision-making is also a matter of Global Health. Countries faced and continue to face uneven distributions of power to shape the agenda and interventions of international agencies. Therefore arguing for the defense of the population health and wellbeing is structurally restricted to certain regions, and is deeply influenced by countries' and corporations' partial interests. The outcome is well-known: health and wellbeing rests on sum-zero, dialectical relationships in which the success of some is made at the expense of the unsuccess of others.

Arguing for a Planetary and One Health vision for Global Health is an academic standpoint aimed at better influencing decision-making. It highlights core cause-effect relationships based on which political change is key to improving health and wellbeing, and the barricades that make political change less effective. The premises are that no human health and wellbeing is sustainable in time and space without a synergetic living with the nature; that the intersection between human and nature can only be pursued if policy design and implementation builds on a global-scale understanding of trade, consumption, and economy; that no effective solution is possible while national governments do not account for the interest and representation of diverse populations and while internationally national governments have put aside decision-making; and that there is need for political commitment to ensure that health and wellbeing are based on scientific principles. Indeed, it may seem obvious, but the regrettable situation observed in some countries shows that policies aimed at ensuring global health must be permanently guided by solid scientific evidence that, under no circumstances, should be politicized. Furthermore, national sovereignty must be respected but somehow needs to cope with growing mandatory influence of international agencies on health and wellbeing-related issues. Otherwise, no change will be effective. Otherwise, neither One Health nor Planetary Health will be made practical in decision-making. A Planetary and One Health vision for Global Health needs to become visible in the academic debate to increasingly influence politics.

This is even more important to highlight if one thinks of what the people at large has been through during the Covid-19 pandemic and that other epidemics, pandemics and endemics are likely to take part in the countries' daily life regardless of their wealth and level of development. Outbreaks are a matter of our contemporaneity built on globalization and a positivistic belief in science to anticipate and overcome most of all human-induced and natural issues [3]. However, it should be noted that scientists' technical and scientific ability is limited. And this understanding is key to make effective the learning from previous situations. The more scientists are aware of the limits of their knowledge, the more

watchful and inclusive of inter- and transdisciplinary they are to tackle public health emergencies. Decision-makers are also made more easily accountable before the science and the public to act in respect of the best available evidence. Too often the Covid-19 pandemic was also political for ignoring the scientific reasoning.

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Declaration of competing interest

The authors have no competing interests to declare.

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Tiago Correia[a,*], Cláudio Tadeu Daniel-Ribeiro[b], Paulo Ferrinho[a]

[a] *Global Health and Tropical Medicine, Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Portugal*

[b] *Laboratório de Pesquisa em Malária, Instituto Oswaldo Cruz & Centro de Pesquisa, Diagnóstico e Treinamento em Malária, Fiocruz, Ministério da Saúde, Brazil*

[*] Corresponding author at: Global Health and Tropical Medicine, GHTM, Instituto de Higiene e Medicina Tropical, IHMT, Universidade Nova de Lisboa, Lisboa, Portugal.

E-mail address: tiago.correia@ihmt.unl.pt (T. Correia).