

Global health postgraduate educational programs profile: a scoping review

Perfil dos programas educacionais de pós-graduação em saúde global: uma revisão de escopo

Camilla Porto Campello (<https://orcid.org/0000-0001-6689-5466>)¹
Liliane Botelho Antunes Menezes (<https://orcid.org/0000-0002-8332-9199>)²
Mara Rúbia André Alves de Lima (<https://orcid.org/0000-0003-2802-6678>)¹
Acácio Sidinei Almeida Santos (<https://orcid.org/0000-0003-4315-0271>)¹
Paulo Marchiori Buss (<https://orcid.org/0000-0002-9944-9195>)²

Abstract *This study aimed to describe a set of global health postgraduate programs profile, emphasizing the importance of promoting education and training in this field to meet global health challenges and ameliorate health outcomes. The present review is in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) checklist and the Scoping Review Methods Manual proposed by the Joanna Briggs Institute. Eligibility criteria were a set of lato sensu or stricto sensu postgraduate educational programs of global health or lato sensu or stricto sensu postgraduate programs of public health that present a global health concentration area. The search yielded 707 studies: MEDLINE/PubMed, Web of Science, and LILACS. A total of 441 studies and their authors' institutional affiliations were analyzed and 101 institutions that offer educational programs were identified. Most postgraduate programs in Global Health or Public health with a concentration area in Global health are master's degrees, and many of them are taught online. The majority of educational programs are offered by institutions in Europe and North America.*

Key words *Global health, Graduate education, Professional competence, Training programs, Review*

Resumo *Este estudo teve como objetivo descrever o perfil de um conjunto de programas de pós-graduação em saúde global, enfatizando a importância de promover educação e treinamento neste campo para enfrentar os desafios de saúde internacional e melhorar os desfechos de saúde. A presente revisão está de acordo com a lista de verificação Preferred Reporting Items for Systematic Reviews and Meta-Analysis for Scoping Reviews (PRISMA-ScR) e com o manual para revisões de escopo proposto pelo Joanna Briggs Institute. Os critérios de elegibilidade abarcaram um conjunto de programas de pós-graduação lato sensu ou stricto sensu em saúde global ou programas de pós-graduação lato sensu ou stricto sensu em saúde pública que apresentaram uma área de concentração em saúde global. A busca resultou em 707 estudos: Medline/PubMed, Web of Science e LILACS. Foram analisados 441 estudos e as filiações institucionais de seus autores, e foram identificadas 101 instituições que oferecem esses programas educacionais. A maioria dos programas de pós-graduação em saúde global ou saúde pública com área de concentração em saúde global são mestrados, e muitos deles são ministrados online. A maioria destes programas educacionais é oferecida por instituições na Europa e na América do Norte.*

Palavras-chave *Saúde global, Educação de pós-graduação, Competência profissional, Programas de formação profissional, Revisão*

¹ Programa de Pós-Graduação em Saúde Global e Diplomacia em Saúde, Escola Nacional de Saúde Pública Sergio Arouca, Fundação Oswaldo Cruz. R. Leopoldo Bulhões 1.480, Manguinhos. 21041-210 Rio de Janeiro RJ Brasil. camilla.campello@gmail.com
² Centro de Relações Internacionais em Saúde, Fundação Oswaldo Cruz. Rio de Janeiro RJ Brasil.

Introduction

Global health is defined as *shared transnational research and action for promoting health for all*¹, is characterized by interdisciplinary collaboration, involving professionals from many varied disciplines committed to contributing to ameliorating health worldwide, focusing on population-based prevention at the personal level clinical care². This field has gained prominence on the international political agenda and has played a relevant role at summit meetings of international forums such as the “Group of 7” (G7) and the “Group of 20” (G20)³. The growing political value of Global Health and the contemplation of this theme on the international scene were extremely expected in the context of health policies and health sciences³.

From the perspective of global health, since 2005 the necessity of universal health coverage is immensely recognized because many people do not have access to one or more essential health services⁴. For this reason, the universal health coverage needs to be implemented with efficient interventions in order to ameliorate health outcomes and guarantee that all communities are included in this approach⁵. Besides, it is paramount to build strong and responsive health systems that support health and wellbeing through sustainable attitudes on a large scale, especially in low-income and middle-income countries⁵.

To face global health challenges requires focused and joint work developed by continents, countries, and communities, which was more than ever reinforced by the COVID-19 pandemic, and demonstrated how essential the global health concept is for the world. For this to occur, it is important to have highly trained workers and an interdisciplinary view from the public and private areas, non-governmental organizations, and governments⁶. Fortifying the quality of health workforce education and training is a priority of the World Health Organization's thirteenth general program of work 2019-2023⁷. Efficacious endeavors to resolve emerging global health issues should encompass the coordination of global health education, surveillance, research, and service⁶.

Tobar *et al.*⁸ (2017) corroborated this thought and affirmed that the present context of the countries of the Region of the Americas and the world, marked with health challenges transcending borders point to the importance of the need for cooperation and joint efforts of various actors to address and face numerous health problems

of the population and the health systems. Therefore, it is primordial to strengthen the training and skills of professionals in this field. Indeed, researchers mentioned the relevance of developing global health competencies⁹⁻¹².

The generation of knowledge in global health and development and its best exploit and application has gained a lot of attention in recent years^{13,14}, as a consequence, there has been a noteworthy growth in the number of educational programs that present global health programs at undergraduate as well as postgraduate levels¹⁴⁻¹⁷. Thus, this study sought to describe a set of global health postgraduate programs profile, emphasizing the importance of promoting education and training in this field to meet global health challenges and ameliorate health outcomes.

Method

Eligibility criteria and protocol

The present study is in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) checklist¹⁸, the Scoping Review Methods Manual proposed by the Joanna Briggs Institute¹⁹, and a model published in important literature²⁰.

One question guided this systematic review: “What is the current profile of global health courses?”

Eligibility criteria were a set of *lato sensu* or *stricto sensu* postgraduate educational programs of global health including or not health diplomacy, *lato sensu* or *stricto sensu* postgraduate programs of public health that present global health concentration area. Articles that not provide authors affiliations were excluded.

Applied research methods

A search was conducted for articles published in LILACS, PubMed/Medline, and Web of Science databases until May 2022. The details and terms employed for the search strategy are shown in Chart 1. Moreover, an additional search was performed on DANS Easy Archive in which OpenGrey data were stored from inception until January 10, 2022. Some websites were also screened for this search such as the Consortium University of Global Health (www.cugh.org), the Centralized Application Service for Public Health (<https://sophas.org/>), Association of

Chart 1. Search strategy.

PubMed	
#1	“Global Health”[MeSH Terms] OR “Global Health”[All Fields] OR “World Health”[All Fields] OR “Worldwide Health”[All Fields]
#2	“Diplomacy”[MeSH Terms] OR “Diplomacy”[All Fields] OR “diplomacy/economics”[MeSH Terms] OR “Diplomacy/economics”[All Fields] OR “diplomacy/education”[MeSH Terms] OR “Diplomacy/education”[All Fields] OR “diplomacy/ethics”[MeSH Terms] OR “Diplomacy/ethics”[All Fields] OR “diplomacy/history”[MeSH Terms] OR “Diplomacy/history”[All Fields] OR “diplomacy/legislation and jurisprudence”[MeSH Terms] OR “Diplomacy/legislation and jurisprudence”[All Fields] OR “diplomacy/methods”[MeSH Terms] OR “Diplomacy/methods”[All Fields] OR “diplomacy/organization and administration”[MeSH Terms] OR “Diplomacy/organization and administration”[All Fields] OR “diplomacy/standards”[MeSH Terms] OR “Diplomacy/standards”[All Fields] OR “diplomacy/statistics and numerical data”[MeSH Terms] OR “Diplomacy/statistics and numerical data”[All Fields] OR “diplomacy/trends”[MeSH Terms] OR “Diplomacy/trends”[All Fields]
#3	#1AND#2
Web of Science	
#1	ALL=(“Global Health” OR “World Health” OR “Worldwide Health”)
#2	ALL=(“Diplomacy” OR “diplomacy/economics” OR “diplomacy/education”OR “diplomacy/ethics” OR “diplomacy/history” OR “diplomacy/legislation and jurisprudence” OR “diplomacy/methods” OR “diplomacy/organization and administration” OR “diplomacy/standards” OR “diplomacy/statistics and numerical data” OR “diplomacy/trends”)
#3	#1AND#2
LILACS (DECS terms)	
#1	“Global Health” OR “World Health”
#2	“Diplomacy”
#3	#1AND#2
DANS Easy Archive	
Diplomacy OR diplomacy/economics OR diplomacy/education OR diplomacy/ethics OR diplomacy/history OR diplomacy/legislation and jurisprudence OR diplomacy/methods OR diplomacy/organization and administration OR diplomacy/standards OR diplomacy/statistics and numerical data” OR “diplomacy/trends	

Source: Authors.

Schools and Programs of Public Health (<https://aspph.org/>), Network of Public Health Schools in Latin America (<http://www6.ensp.fiocruz.br/resp/?q=pt-br/node/2>), and a website reporting global health graduate courses (<https://www.healthcarestudies.com/Courses/Global-Health-care/>). No filters were applied concerning to publication time, language or anything else.

The selected studies were imported into Endnote online in order to remove duplicate studies. After the removal of duplicates, the titles and authors affiliations of all studies were read to find authors affiliations that mention programs in Global health or in Public health and universities names. Afterwards, the universities websites were searched to find courses details that attended the previously established inclusion criteria.

Data collection process

We collected the available data from the articles and universities' websites. The extracted data included courses name, universities where the courses are offered, countries where the universities are localized, courses website, courses level, the period necessary to conclude the course, credits required for the conclusion, and the study mode.

Results

Literature search

The search yielded 707 studies: MEDLINE/PubMed (n = 336), Web of Science (n = 339), LILACS (n = 32), and DANS Easy Archive (n = 0) (Figure 1). A total of 451 articles remained after

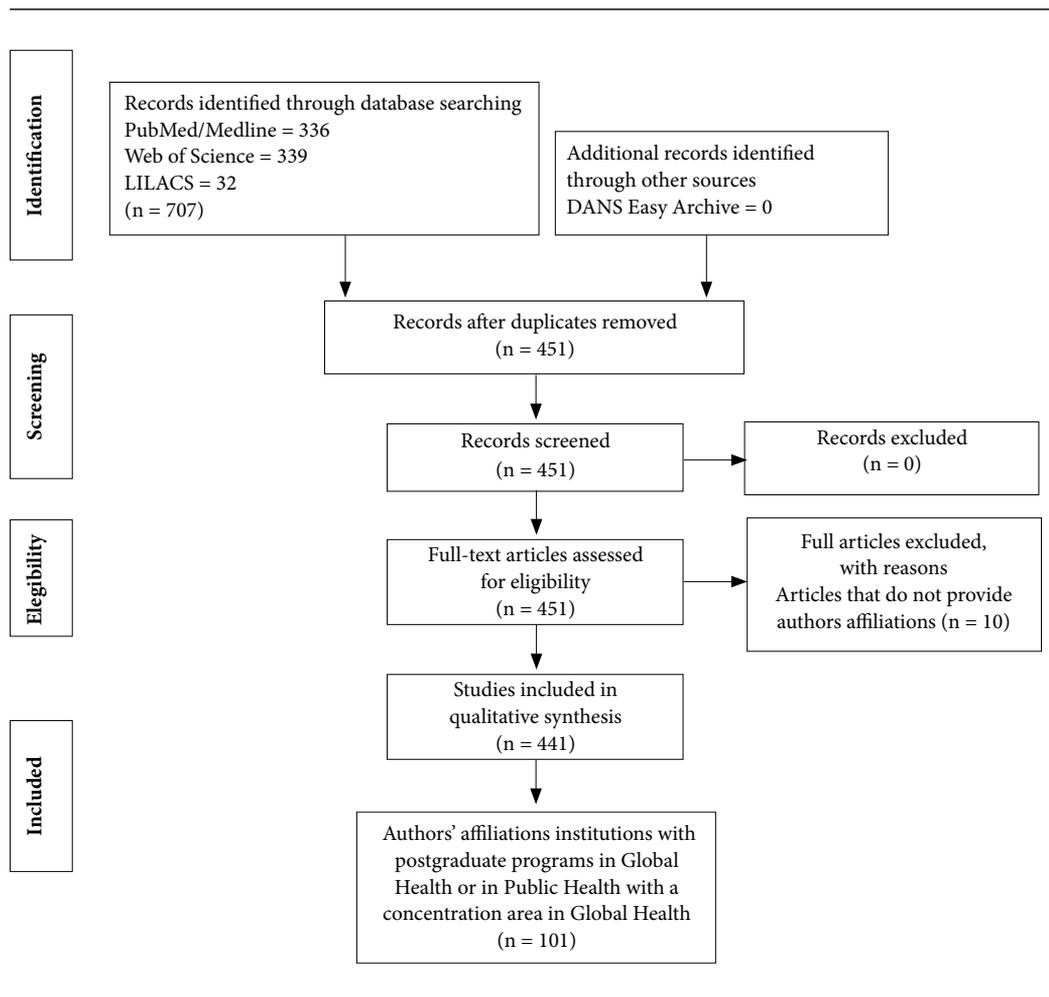


Figure 1. PRISMA flow diagram.

Source: Authors.

the removal of duplicate studies. The titles and abstracts of these studies were evaluated in order to check authors' affiliations and educational programs following the inclusion and exclusion criteria. Ten studies were excluded because they did not provide authors' affiliations. Therefore, a total of 441 studies were examined to find universities with postgraduate courses in Global Health or Public Health with a concentration area in Global Health.

Furthermore, the additional search in websites described in methodology section retrieved more different institutions that provide these educational programs.

Description of the institutions and postgraduate courses

According to the carried out search in databases the 101 institutions offered these courses were University of California, Laval University, University of Warwick, Columbia University, University of Southern California, Harvard University, University of Melbourne, University of Edinburgh, University of Oxford, University of Queensland, National Taiwan University, University at Albany, University of Pennsylvania, University of Arizona, University of Wisconsin-Madison, Pennsylvania State University, University of Ottawa, University of College London, Queen Mary University of London, McMaster University, University of Bergen, Heidelberg University, University of Sheffield, Stanford Universi-

ty, Tufts University, Rutgers University, University of Michigan, Duke University, Yale University, Tulane University, Georgetown University, Lisbon University, University of Toronto, St George's University of London, University of Miami, San Diego State University, University of Maastricht, George Washington University, University of Global Health Equity, New York University, Sechenov University, University of Leeds, The Chinese University of Hong Kong, University of Copenhagen, Cambridge University, Newcastle University, Brown University, University of North Florida, University of Washington, University of South Florida, Case Western Reserve University, Griffith University, Ludwig Maximilians University, University of Georgia, Tsinghua University, Geneva Graduate Institute for International and Development Studies, Curtin University, Indiana University, Johns Hopkins University, Southeast University in Nanjing, London School of Economics and Political Science, University of Tokyo, King's College London, University of New South Wales Sydney, Arizona State University, James Cook University, University of Texas, University of Macau, East Tennessee State University, University of Maryland, University of Alabama, University of North Carolina, University of British Columbia, Duhan university, Emory University, Peking University, Boston University, University of Sydney, Anglia Ruskin University, University of Southampton, Texas A & M University, University of New Mexico, Emory University, Seton Hall University, Bayero University, University of Pretoria, University of Zimbabwe, University of Auckland, New York Institute of Technology, Karolinska Institutet, Yonsei University, University of Geneva, Québec University, University of Birmingham, University College London, University of Sussex, University of Antwerp, Coventry University, Saint Louis University, University of Oslo, Chile University, University of Porto. The details of all institutions identified are described in Supplementary Table 1 (available at: <https://doi.org/10.48331/scielodata.LK2VGS>).

Discussion

The present study identified a set of global health postgraduate program profiles, consisting of graduate certificates, specializations, masters, and PhDs. Some of these courses are in Public Health with a concentration area in Global Health. Sawleshwarkar, Nevin (2017)¹⁴ corroborated this finding mentioning that academic institutions

are also exploring the scope of public health educational programs in the global health area in order to attend to this demand, preparing professionals to achieve sustainable development goals.

According to developed research most postgraduate courses were masters which can be done on campus in a period of two years. Several institutions such as St George's University, University of Edinburgh, IU International University of Applied Sciences, James Lind Institute, Liberty University, University of South California, University of Waterloo, London School of Hygiene and Tropical Medicine, Indiana University, Drexel University, and New York Medical College offer online masters, which permit people who have less time to commute and live far from the universities perform these courses. The master's programs in global health are paramount in creating deeper knowledge of globalization processes as well as in giving opportunities for global health practicum experiences²¹.

The number of PhDs in Global Health or in Public Health with a concentration area in Global Health is lower in comparison with master's degrees. Specializations and Certificates in Global Health are excellent options for professionals who need faster preparation and certification. Many of them are taught online such as the postgraduate courses offered by University of British Columbia, National School of Public Health Sergio Arouca of Oswaldo Cruz Foundation, School of Public Health of SUNY Downstate, University of Albany, Rutgers University, and Ohio University.

In general, most Global Health programs were offered by institutions localized in developed countries; consequently, people who live in these locations have more opportunities than professionals from least favored countries. In accordance with these data, a recent study affirmed that the prevalence of global health degree programs in high-income countries demonstrates the imbalance in power in the global health field²². Professionals who performed these programs frequently develop their careers in international organizations and academic institutions, occupying spaces in global health work²². As a result, workers from high-income countries have so much more job chances in this field compared with professionals from low-income countries.

Moreover, the progress of the domains and competency statements for global health are often conducted in accordance with programs present in high-income countries²³. Thereby, professionals acting in low-income countries, lower

middle-income countries, and upper-middle-income countries are not properly included in this construction²⁴, which should not happen and need to be modified because it is not possible to have a holistic view of the global health without the participation of professionals from developing countries.

It is known that numerous global health programs are motivated to seek to tackle health inequalities between high-income countries and low- and middle-income countries²⁵. For this reason, it is essential the institutions in developed regions to promote the participation of professors, researchers, and health workers from developing countries in global health academic programs. This will certainly contribute to meeting global health challenges and ameliorating health outcomes. In turn, governments and academic institutions in low- and middle-income countries, mainly in the Global South, should make endeavors to participate and build common concepts of the global health field enabling the sharing of information in education, research, and implementation agenda for global health²⁴. Moreover, the huge disparities between low- and high-income countries and among subpopulations inside countries arouse compassion and action in students²⁶, which motivates them to develop joint international work. It is important to bear in mind the importance of opportunities for mutual learning and joint solutions accessible through international interdependence due to the development of global health knowledge, technologies, investments cross-border, and the migration of patients and professionals²⁷.

This study found some educational postgraduate programs that encompass health diplomacy as can be seen in titles like “Global Public Affairs- Global Health and Social Sciences” offered by the University of California, “Global Health and Health Diplomacy” offered by the National School of Public Health Sergio Arouca of Oswaldo Cruz Foundation, and “International Affairs & Public Health (Combined)” available at the Texas A & M University. Other educational programs like “International and Development Studies with a specialization in Global Health” available at Geneva Graduate Institute for International and Development Studies included health diplomacy in their courses or aims and it has significant importance. Indeed, global health became part of external policy agendas and is discussed

in diplomacy²⁸ which permits interactions and agreements among governments and international organizations²⁹. International agreements, such as the International Health Regulations, demand knowledgeable work developed by health professionals who present the domain of diplomacy (i.e., global health diplomacy professionals)³⁰, thus it is essential to include this topic as one of the most main aims of Global Health postgraduate programs. These global health professionals also need to be prepared to work with the sophisticated diplomatic processes that encompass international health accordance in order to lead with difficult global health scenarios³⁰, as was the case of the COVID-19 pandemic. In addition, Lencucha, Mohindra (2014)¹¹ pointed to the need for any global health curriculum to include basic knowledge of international law, elementary economics, and financial as a complement.

The current research was performed in four internationally recognized databases, gray literature, and relevant websites which permitted the identification of a wide range of postgraduate programs in the global health field, meeting the purpose of this study. However, there are some methodology limitations. The educational programs detected do not reflect all existing postgraduate degrees in the global health field. A lot of them were researched on the institution's website after examining the author's affiliations and educational programs in published articles and through relevant websites which informed institutions offering postgraduate courses in global or public health. Therefore, publications may not have entered the search strategy, educational programs may not have publications, and a manual search on websites in order to find global postgraduate education details is prone to errors. Additionally, educational programs may have been updated and new programs may also have been implemented after this research was carried out. People who are interested in postgraduate education presented in this article should confirm all information with the institutions.

According to the analyzed results of this study, global health educational programs are more concentrated in developed countries; thus, it is necessary to implement new postgraduate degrees in this field and provide resources for research and training for professionals in more geographical areas such as Latin America, Africa, and the Caribbean.

Conclusion

Most postgraduate programs in Global Health or Public health with a concentration area in Global health are master's degrees, and many of them are taught online. The majority of educational

programs are offered by institutions in Europe and North America. Therefore, it is required to implement more Global Health educational programs in order to provide competencies in this field to professionals from low-income and middle-income countries.

Collaborations

CP Campello contributed to the conception, design, analysis, and interpretation of data, drafting the article, revising it critically, and approving the version to be published. LBA Menezes contributed to the design, analysis, and interpretation of data, revising it critically, and approving the version to be published. MRAA Lima contributed to the design, analysis, and interpretation of data, revising it critically, and approving the version to be published. ASA Santos contributed to the design and interpretation of data, revising it critically, and approving the version to be published. PM Buss contributed to the conception, design, and interpretation of data; revising it critically, and approving the version to be published.

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