

# Gender equity in healthcare workers: a systematic literature review

## La equidad de género en el personal de salud: una revisión sistemática de la literatura

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### Abstract

**Introduction:** The healthcare sector represents one of the most feminized economic activities; however, there are wide gender gaps between workers in the sector. **Objective:** This paper seeks to characterize and identify the health sector's obstacles to achieving gender equality. **Methods:** A systematic literature review was conducted, and 52 studies were compiled using different repositories and bibliographic databases. **Results:** Results show that, although women represent most health personnel in the world, they present obstacles to reaching leadership positions, equal remuneration, receiving recognition and support, and accessing certain specialties, among other aspects. **Discussion:** Women's participation in the labor market alone is not enough to achieve equality. It is necessary to have institutional support, transform the organizational culture, highlight the importance of the gender perspective in all areas, and propose concrete measures to address existing disparities.

**Keywords:** Gender perspective; Women; Health workforce; Working conditions; Leadership; Salaries and fringe benefits.

### Resumen

**Introducción:** el sector salud representa una de las actividades económicas más feminizadas, no obstante, se presentan amplias brechas de género entre los trabajadores y trabajadoras del sector. **Objetivo:** este trabajo busca caracterizar e identificar los obstáculos presentes en el sector de la salud en términos de equidad de género. **Metodología:** para ello, se realizó una revisión sistemática de literatura en donde se recopilieron 52 estudios empleando diferentes repositorios y bases de datos bibliográficas. **Resultados:** los resultados exhiben que, si bien las mujeres representan la mayor parte del personal sanitario en el mundo, enfrentan obstáculos para alcanzar puestos de liderazgo, igualdad en la remuneración, recibir reconocimiento y apoyo, acceder a ciertas especialidades, entre otros desafíos para participar en el sector en condiciones de igualdad. **Conclusiones:** la sola participación de las mujeres en el mercado laboral no es suficiente para lograr la igualdad. Es necesario contar con respaldo institucional, transformar la cultura dentro de las organizaciones y destacar la importancia de la perspectiva de género en todos los ámbitos, proponiendo medidas concretas para abordar las disparidades existentes.

**Palabras clave:** Perspectiva de género; Mujeres; Fuerza laboral en salud; Condiciones de trabajo; Liderazgo; Salarios y beneficios.

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## Introduction

Health systems are an essential part of the positive transformation of communities and societies<sup>2</sup>; in this sense, the participation of personnel is fundamental to advancing toward excellence<sup>2</sup>. One element that distinguishes the health sector is the high participation of women. Still, at the same time, there is marked segregation and a wide salary gap, which limits professional development and access to opportunities on equal terms<sup>1</sup>.

However, there is growing recognition of the importance of women's full participation as health care providers in achieving higher rates of social welfare<sup>3-7</sup>. To this extent, countries and organizations have joined efforts to eradicate gender inequality. An example of this is the Beijing Declaration in 1995, which seeks to promote equality and development for all women worldwide, which is in the interest of all humanity. Likewise, in 2007, at the X Regional Conference on Women in Latin America and the Caribbean, the importance of gender parity in decision-making processes was highlighted, and the sexual division of domestic work was highlighted as a structuring factor in the maintenance of gender inequality. More recently, in 2015, it was raised among the Sustainable Development Goals to seek to achieve gender equality, empower all women (goal 5), and promote employment and decent work (goal 8). According to the UN, achieving gender equality is not only a fundamental right but also one of the critical elements for achieving a peaceful, prosperous and sustainable world<sup>8</sup>.

This literature review seeks to explore the obstacles to gender equality in human resources in the health sector to improve the understanding of the different aspects that affect women in the labor market of this world sector. To this end, the studies will be detailed from five categories of analysis that allow the analysis of gender equality in the workplace from different dimensions.

## Methodology

The methodology employed consisted of a systemic literature review on gender equality of human resources in the health sector. According to Carrizo and Moller<sup>9</sup>, systematic literature reviews aim to identify, evaluate, and interpret the results of available studies about a specific research question.

This review analyzes and compares the results of the studies related to questions about the gender approach in the health sector. In this sense, the studies reviewed were not critically evaluated, but rather, the available evidence was detailed in an unbiased manner. The methodology used is the PRISMA, for which databases, search equations, inclusion and exclusion criteria and information analysis were used.

## Sources of information

For the systematic review, keywords were used with boolean or logical operators, which allowed filters to be made, making delimited and precise explorations oriented to find the information effectively and efficiently. The keywords were: "gender equality," "health workers," "gender equality," AND "health human resources." The systematic literature search focused on the Scopus, Springer Nature, Web of Science, and ScienceDirect databases. In addition, to complement the results found in the articles, grey literature and reports issued by recognized organizations related to the central axis of research, such as Global Health, the World Health Organization, and the International Labor Organization, were collected. The search for information in the databases was carried out between March and June 2023.

## Selection of sources

Inclusion and exclusion criteria for the selection of articles included the need for documents to reflect a gender perspective and to include gender-disaggregated information in the title, abstract, and keywords. In addition, the focus of the research had to be on gender equity in health personnel, as the search revealed that there is a large body of literature that focuses on studies of equity in access to health care, conditions of the user population, and cases of diseases or aspects outside our research question. Thus, documents whose main research objective was the population's access to health or the treatment of diseases were discarded. The selection period of information sources was limited to publications between 2003 and 2023.

## Data extraction and analysis

After reviewing the text of all selected sources, information on the author(s) and year, title, source, country, objective, data source or type of study, key findings, and conclusions were analyzed.

Once the information was tabulated, categories were created according to the main findings of the studies. A total of 5 categories were made: (1) gender composition of the health workforce; (2) selection, recruitment and retention processes; (3) leadership; (4) remuneration; and (5) working conditions and professional development.

### Results

According to the research methodology, the initial search yielded 675 records in databases and 7 manual search documents, of which 643 records were obtained after eliminating duplicates. When reviewing the titles and abstracts, 82 papers were selected, but after reading

the entire document, 52 references were selected, of which 45 (86.5%) were research articles, and 7 (13.5%) were reports of organizations, [Figure 1](#).

48% of the studies were published between 2020 and 2023, 38% between 2017 and 2019, and 13% between 2003 and 2017. The years with the highest frequency of publications are 2019 and 2022, with 9 publications each year. The countries from which the highest frequency of studies are presented are the regions of North America, Asia, and Africa. The literature review results are presented below according to the categories identified in the methodology.

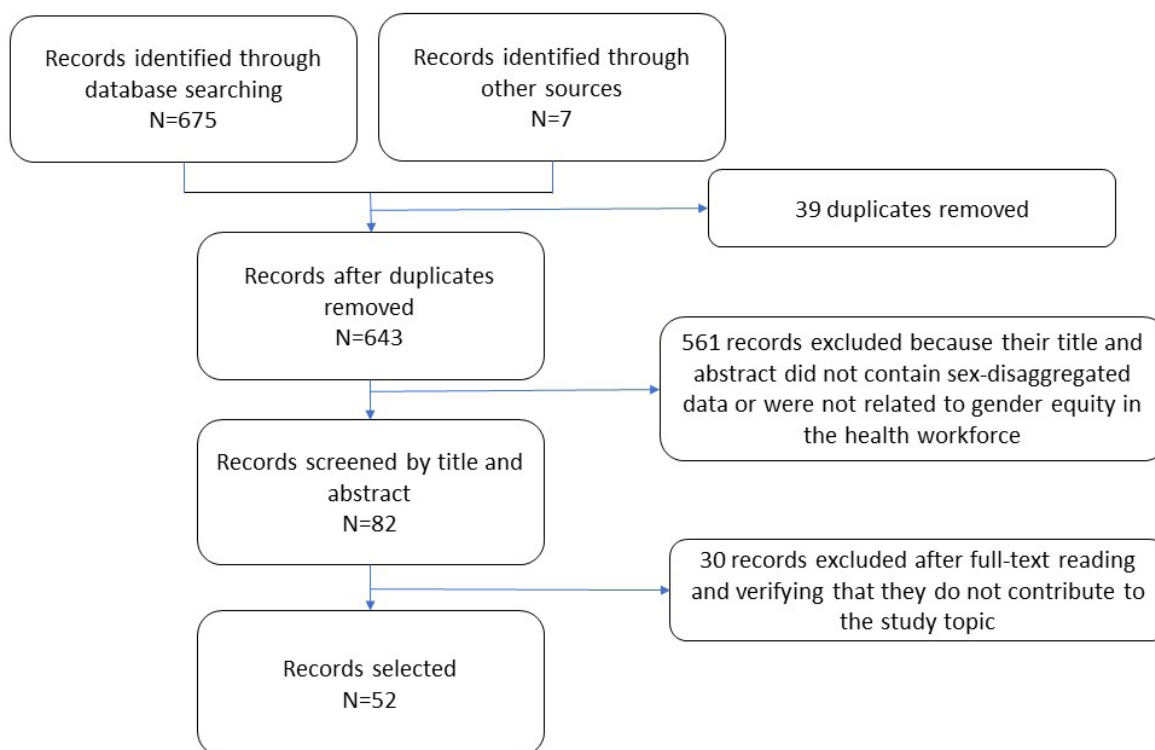


Figure 1. Item selection flowchart.

**Table 1.** Characteristics of the evaluated bibliographic sources.

Category	Authors	Year	Sample/Country/Region
Gender composition of the health sector workforce 11 studies	OMS y OIT <sup>1</sup>	2022	54 countries from all regions of the world
	Shannon et al. <sup>5</sup>	2019	Global data
	Florián et al. <sup>10</sup>	2022	Colombia
	Acosta et al. <sup>11</sup>	2022	Colombia
	Gupta et al. <sup>12</sup>	2003	Austria, Canada, Denmark, Finland, France, Germany, Netherlands, Norway, Spain, Switzerland, United Kingdom, United States, Slovakia, Russian Federation, Hungary, Poland and Czech Republic
	Shannon et al. <sup>13</sup>	2019	25 countries from all regions of the world: among them, Canada, South Africa, 4 universities in Germany, Sweden, Austria, United Kingdom and Pakistan
	Cohen y Kiran <sup>14</sup>	2020	Canada
	Widdifield et al. <sup>15</sup>	2021	Canada
	Tiwari et al. <sup>16</sup>	2021	South Africa
	Kuhlmann et al. <sup>17</sup>	2017	4 universities in Germany, Sweden, Austria and the United Kingdom
	Mohsin y Syed <sup>18</sup>	2020	Pakistan
Selection, recruitment and permanence processes 11 studies	García-Roa y Tapias-Torrado <sup>3</sup>	2013	Colombia, Argentina, Spain, Canada, Germany New Zealand, Somaliland, London, Nepal, Finland, South Africa, India and The Philippines.
	Aspiazu <sup>19</sup>	2017	Argentina
	Arrizabalaga et al. <sup>20</sup>	2015	Spain
	Cáceres et al. <sup>21</sup>	2019	Colombia
	Bogler et al. <sup>22</sup>	2019	Canada
	Morcillo-Martínez J et al. <sup>23</sup>	2023	Spain
	Reimann y Alfermann <sup>24</sup>	2018	Germany
	Harding T. <sup>25</sup>	2009	New Zealand
	Keynejad et al. <sup>26</sup>	2018	Somaliland and Londres
	Szabo et al. <sup>27</sup>	2020	Nepal and Finland
	Bourgeault et al. <sup>28</sup>	2021	South Africa, India and the Philippines
Leadership 15 studies	Ayaz et al. <sup>2</sup>	2021	Global data from 198 global organizations active in health and health policies in Cambodia, Kenya, Zimbabwe, Afghanistan, Bangladesh, the Democratic Republic of Congo, Ethiopia, India, Indonesia and Nigeria
	Dhatt et al. <sup>4</sup>	2017	Cambodia, Kenya and Zimbabwe.
	Global Health <sup>6</sup>	2018	140 global organizations active in health and sanitary policies
	Zeinali et al. <sup>29</sup>	2019	Not applicable
	Kalbarczyk et al. <sup>30</sup>	2021	Afghanistan, Bangladesh, Democratic Republic of Congo, Ethiopia, India, Indonesia and Nigeria.
	Bhat et al. <sup>31</sup>	2022	Worldwide data
	Global Health <sup>32</sup>	2019	198 worldwide organizations active in health and health policies.
	Global Health <sup>33</sup>	2022	90 global organizations active in health and health policies
	Tomizawa <sup>34</sup>	2013	Japan, Ecuador, United States, Sub-Saharan Africa, Middle East and North Africa (MENA), Latin America and Ethiopia
	Sarmiento et al. <sup>35</sup>	2021	Ecuador
	Bukhari et al. <sup>36</sup>	2020	Not available
	Spyres et al. <sup>37</sup>	2019	United States
	Sethi et al. <sup>38</sup>	2022	United States
	Meagher et al. <sup>39</sup>	2023	Subsaharan Africa, Middle East and North Africa (MENA) and Latin America
	Mukhtar et al. <sup>40</sup>	2022	Ethiopia

Category	Authors	Year	Sample/Country/Region
Remuneration 5 studies	Gupta et al. <sup>41</sup>	2023	200 global organizations active in health and health policies from 91 countries (20 of them in the Americas), among them Colombia, United Kingdom, Cambodia, Zimbabwe, Uganda, India, China, Nigeria, Tanzania, Turkey, Kenya, Lesotho, Canada and Democratic Republic of Congo
	Maini et al. <sup>42</sup>	2017	Democratic Republic of Congo
	Gupta et al. <sup>43</sup>	2022	Canada
	Ved et al. <sup>44</sup>	2019	India
	Miao et al. <sup>45</sup>	2017	China
Working conditions and professional development 10 studies	Global Health <sup>7</sup>	2020	200 global organizations active in health and health policies from 91 countries (20 of them in the Americas), among them Colombia, United Kingdom, Cambodia, Zimbabwe, Uganda, India, China, Nigeria, Tanzania, Turkey, Kenya, Lesotho, Canada and Democratic Republic of Congo
	Caballero et al. <sup>46</sup>	2017	Colombia
	Ozbiğgin et al. <sup>47</sup>	2011	United Kingdom
	Morgan et al. <sup>48</sup>	2018	Cambodia, Zimbabwe, Uganda, India, China, Nigeria and Tanzania
	Çoban y İnal-Önal <sup>49</sup>	2023	Turkey
	Musoke D., et al. <sup>50</sup>	2018	Uganda
	McKague et al. <sup>51</sup>	2021	Uganda and Kenya
	Newman et al. <sup>52</sup>	2011	Lesotho
Cho y Levin <sup>53</sup>	2022	20 countries of the Americas region	
Hay et al. <sup>54</sup>	2019	91 countries from all regions of the world	

## Discussion

The following is a detailed analysis of the results of the bibliographic sources found in each of the five categories. In addition, a thorough comparison of gender inequality in human resources for health is presented concerning country characteristics.

### Gender composition of the health workforce

According to the World Health Organization (WHO) and the International Labor Organization (ILO)<sup>1</sup>, the health sector is an essential source of employment. In 2022, employment in the sector will account for about 3.4% of global employment, 10% of employment in high-income countries and just over 1% in low- and middle-income countries. One of the characteristics of this sector is the high participation of women in the workforce, which is about 67% globally, 75.3% in high-income countries, and 63.8% in low- and middle-income countries.

According to Florián et al.<sup>10</sup>, in Colombia, women represent 80.3% of the health sector workforce. This participation of more than 70% is maintained at the auxiliary, technical, technological, and university levels, except in specialization, where they have a participation of 43.8%. Consistent with these results, Acosta et al.<sup>11</sup>,

in a characterization of a level II health institution in Colombia in 2019, found that women predominate in the medical staff (58.7%), while men predominate in the administrative staff (68.8%).

In general, the global healthcare workforce is becoming more feminized<sup>12-13</sup>. In Canada, the proportion of female physicians has increased significantly, from 11% in 1978 to 43% in 2018<sup>14</sup>. Even in specialties that have historically been masculinized, such as rheumatology, the proportion of women has increased from 27.0% to 41.7% between 2000 and 2015<sup>15</sup>. This trend is also evident in countries such as South Africa, where the rate of female physicians per 10,000 population increased from 1.2 in 2000 to 3.2 in 2019, a comparatively faster growth than that of men, from 3.5 in 2000 to 4.7 in 2019<sup>16</sup>.

This growing participation of women in the health sector is even more visible in the faculties of university institutions. In a study of four academic health centers in Germany, Sweden, Austria, and the United Kingdom, Kuhlmann et al.<sup>17</sup> found that the proportion of female medical students and doctors had increased to 40-60%. In the case of Pakistan, Mohsin and Syed<sup>18</sup> note that the proportion of women in medical schools is between 80-85%.

## Processes of recruitment, hiring, and permanence

Regarding the recruitment of human talent in the health sector, in Argentina, the precariousness of the forms of contract stands out, given the low number of permanent contracts, which means that health workers must resort to multiple jobs, increasing burnout and affecting the quality of services. These characteristics are particularly prevalent among female heads of household, who are present in lower-skilled occupations with flexible working hours and who see having more than one job to increase their income<sup>19</sup>.

In Spain, Arrizabalaga et al.<sup>20</sup> points out that although the proportion of women among specialists in training has increased to 50%, male specialists have a higher proportion of permanent positions and hierarchical promotions. This underrepresentation of women in more stable positions is one of the gender barriers that work in synergy with other obstacles to women's ability to achieve their career goals and advance to higher positions.

In Colombia, the perpetuation of bad habits in personnel selection is motivated by discretionary selection methods, especially in managerial positions, which become a glass ceiling for women<sup>3</sup>. In addition, issues such as maternity, marriage, and care work reinforce exclusionary hiring, where women are perceived to be at a disadvantage in the selection process compared to their male counterparts. On the other hand, they go so far as to state that managers prefer to hire women because they are willing to accept a lower salary than men<sup>21</sup>.

Social norms related to gender and the sexual division of labor are some of the most significant barriers that women perceive to their career retention and advancement. On average, women devote more time than men to domestic and unpaid care responsibilities, which sometimes translates into fewer work hours and even leads to women giving up their careers to take on family responsibilities<sup>22,23</sup>. Thus, although the number of women in the health sector is increasing, there is often a delay at various turning points in their careers<sup>24</sup>, even in highly feminized fields such as nursing<sup>25</sup>.

According to Cohen and Kiran<sup>14</sup>, when plotting women's working hours throughout their careers in the health sector, a U-shaped curve is seen, where it decreases until about age 38 and then increases at higher levels, consistent with the period of early childbearing and childrearing.

In turn, various cultural issues may limit women's persistence in the workplace. According to Mohsin and Syed<sup>18</sup>, despite the high proportion of female students in medical schools in Pakistan, these proportions still need to be reflected in the labor market. This phenomenon is mainly because many women choose to devote themselves to housework and abandon their careers. In Somaliland, on the other hand, women often face overt gender discrimination, which makes it difficult for them to obtain employment, scholarships, and promotions, especially those who marry or become pregnant<sup>26</sup>.

Finally, it should be noted that gender stereotypes are a constraint not only for women but also for men who try to enter professions that are traditionally considered feminine, such as nursing<sup>27,28</sup>, where men who choose this profession are even called "effeminate"<sup>25</sup>.

## Leadership

Despite the apparent feminization of the health sector, there is a significant segregation of the workforce, with women under-represented in the highest-paying jobs and leadership and decision-making positions<sup>2,29-31</sup>. According to a report on human resources for health published by Global Health<sup>32</sup>, of the 198 most essential health organizations worldwide, 10 have no women on their executive teams, and fewer than 3 in 10 have parity on their boards. In addition, 71% of CEOs and 72% of chief executives are men. According to the statistics, men are 50% more likely than women to reach senior leadership positions in healthcare organizations.

Other data also show that women in low-income countries must be included in governing bodies. Based on data from Global Health<sup>33</sup>, out of 146 health organizations worldwide, 40% of board positions are held by women, but women from low-income countries have less than 1%. Disaggregating this sample by type of organization reveals more profound inequalities. For example, on the boards of private for-profit companies, which wield considerable financial power, women hold 30% of the seats, of which only 2% are from middle-income countries and none from low-income countries. Similarly, in philanthropic organizations that distribute resources for global health and development, only 3% of boards are in the hands of citizens from low-income countries, and only one seat is held by a woman from a low-income country.

Inequity in health leadership is widespread. According to Dhatt<sup>4</sup>, only 27% of health ministers worldwide were women in 2015, and only 23% of delegations to the World Health Organization had a female head of delegation. These limitations may be more visible in male-dominated fields, such as surgery<sup>34,35</sup>. Still, they are also latent in feminized professions, such as pharmacy<sup>36</sup> and academic institutions, where women are less likely to become tenured faculty, department chairs, and program directors and take on administrative roles<sup>17,37,38</sup>.

Gender roles, relationships, norms and expectations shape development and leadership at multiple levels<sup>4</sup>. In the absence of policies and mechanisms to prevent discrimination, the stereotypes that have been culturally constructed around feminine and masculine characteristics ascribe the competencies and capacities for leadership to men, leaving women behind<sup>3</sup>. In different contexts, such as regions in armed conflict, systematic and structural barriers to women's advancement to leadership positions are exacerbated by security concerns and patriarchal attitudes<sup>39</sup>.

According to a study by Muktar et al.<sup>40</sup> in Ethiopia, women who have the support of their family members and colleagues and receive organizational support in the form of training, development, and recognition are more likely to compete and rise to leadership positions. They also note that the qualities valued in women in leadership positions include a vision of long-term goals, empathy, listening, and the intelligent use of resources. Meanwhile, Cáceres et al.,<sup>21</sup> in a study of female physicians in Colombia, point out that women who reach positions of power sometimes must adopt authoritarian, cold, and even aggressive behaviors to reproduce the attitudes of their male colleagues and thus be able to maintain the position.

## Remuneration

One of the main difficulties women face in the health sector is wage inequality. According to WHO and ILO statistics<sup>4</sup>, the wage gap in the health sector is more comprehensive than in other areas of the economy. An analysis using data from 54 countries shows that salaried women earn approximately 20% less than men in the health sector. This gap could be even more significant without controlling for group effects since women are overrepresented in lower-paid job categories where the gap is smaller. In comparison, men are concentrated in higher-paid categories where the gap is more significant. In the case of Colombia, the wage gap in the health sector averages 12.8% and can be wider depending on the level

of education and area of specialization; for example, in specialties such as general surgery, the gap reaches 24.5%<sup>10</sup>. In Canada, women are overrepresented in the medical specialties with the lowest estimated net income (family medicine, psychiatry, and pediatrics). However, despite this, men earn 30% more in these areas and 40% more in all specialties, even after controlling for variables such as educational level, working hours, age, specialty, and practice characteristics<sup>14</sup>. These gaps are also visible in administrative health personnel, where women earn between 12% and 20% less than men after adjusting for age, education, and other characteristics<sup>41</sup>. Similarly, in the Democratic Republic of Congo, nurses are more likely to receive per diem, performance pay, and higher salaries than women, despite women having more sources of income<sup>42</sup>.

The gender pay gap is present in clinical professions and occupations related to the health sector<sup>13</sup>. Such is the case of female health policy researchers in Canada, who earn, on average, 4.8% less than men after adjusting for professional and personal variables. This wage gap is more comprehensive than in other policy fields that maintain a similar gender composition, such as education, which has a gap of 2.6%<sup>43</sup>.

These differences are due to gender stereotypes that have persisted over time and stigmatizations that have contributed to a culture that believes women should work for the community without financial compensation even with the unequal and unsustainable burden of their domestic responsibilities, as is the case in India in the Accredited Social Health Activist (ASHA) program. Recently, these women have expressed dissatisfaction with their pay and workload. However, the officials in charge have taken different positions, claiming that a salaried model may jeopardize the flexible education requirement and raise selection standards, making fewer women able to join<sup>44</sup>.

Conversely, in China, studies show that although men earn more than women, there is no wage gap because men's higher wages are because they receive more frequent overtime, which is usually higher than the rate of pay for ordinary working hours<sup>45</sup>.

## Working conditions and professional development

Working conditions with a gender perspective in the health sector are vital for institutions and society since they are directly related to the quality of service and the satisfaction of personnel in exercising their profession.

Caballero et al.<sup>46</sup> points out that the “Burnout syndrome” has existed in the health sector for several decades. However, in Colombia, although in both men and women, emotional fatigue is related to work overload, in women, there is an inverse relationship with intrinsic motivation, which allows higher levels of satisfaction to be maintained and acts as a protective element of the syndrome.

In the United Kingdom, one of the reasons for this heavy workload is long working hours, which are valued and represent commitment and productivity. Ozbilgin et al.<sup>47</sup> identified a resistance to flexible working patterns in the healthcare sector, as staff feel a sense of loss of professionalism in the face of shorter working hours. As women comprise the majority of part-time staff, they are affected by their inclusion and are considered less professional.

In Canada, women face barriers to inclusion and equity, especially as they begin their careers. Among the many challenges they resist are the lack of professional and financial support and qualifying prejudices that consider them less capable than men. In addition, there is a lack of comprehensive family and care services and individual medical leave and work-life balance policies<sup>22</sup>. In Zimbabwe, on the other hand, women face obstacles in accessing training due to stereotypes and cultural constraints. While men can take advantage of training opportunities, women must attend to their domestic responsibilities, thus limiting them professionally<sup>48</sup>.

In Turkey, women are considered more fragile and vulnerable in disaster response management activities<sup>49</sup>. In Uganda, although the responsibilities of community health workers are the same regardless of gender, they perform different types of work depending on their sex due to men’s privileged access to motorcycles, which allows them to cover greater geographical distances during community mobilization activities<sup>50</sup>. Women need more access to equipment, medicines, capital, social support, and networking opportunities<sup>51</sup>.

On the other hand, the informality of health care services can even endanger women’s lives, as the material needs of the profession are not recognized. This is the case in Lesotho in southern Africa, where the lack of economic resources does not allow the basic requirements of water, soap, and gloves to be met, putting at risk the safety of those who assist people with HIV, most of whom (91%) are women<sup>52</sup>.

## Gender inequality in human resources for health and country characteristics

A breakdown of the results by country shows that in all regions, the participation of women in the health workforce is higher than that of men, including developed countries such as Canada, Germany, Sweden, Austria, and the United Kingdom, and developing countries such as Colombia, Argentina and countries in Asia and Africa.

However, despite high levels of feminization, significant inequalities in pay and participation in positions of power and decision-making are generally well-documented. However, women’s chances of attaining managerial positions and equal pay are lower in middle- and low-income countries. Similarly, while women, on average, have worse working conditions than men worldwide, inequalities are more pronounced in some regions. These disparities are related to cultural and policy developments concerning gender equality. In countries such as Pakistan<sup>18</sup>, Ethiopia<sup>40</sup>, India<sup>44</sup>, the Democratic Republic of Congo<sup>42</sup>, Zimbabwe<sup>48</sup>, Uganda<sup>50-51</sup>, Lesotho<sup>52</sup>, among others, where gender stereotypes are more prevalent and regulatory advances regarding gender equality are lower, the obstacles for women are more significant, with higher levels of exclusion, lack of job protection and discrimination.

## Conclusions

Human resources for health represent a significant proportion of the global workforce, which has become increasingly feminized in recent years. However, several systemic and cultural practices that perpetuate gender inequality persist. Challenges faced by women include discretionary and stereotypical selection processes, the wage gap, lack of equal opportunities at decision-making levels, occupational segregation, and barriers due to the overburdening of unpaid domestic and care work. Men, however, are also affected by the choice of occupations that are socially perceived as unconventional for them and are singled out with gender stereotypes.

The projects, policies, and programs implemented in the sector must incorporate gender mainstreaming to correct existing inequalities. Participation, representation, or parity alone is not enough to achieve equality; it requires institutional support, a change in organizational culture, and the visibility of the gender perspective in all areas to provide solutions to existing



inequalities<sup>53-54</sup>. Good governance of human resources for health requires a comprehensive approach, with gender at the heart of efforts.

### Author contributions

CC and AC: Study design, critical review, correction, and final approval.

GC: Collection, analysis, and interpretation of information, as well as drafting of the first version.

### Ethical considerations

Based on Colombian Resolution 8430 of 1993, it is considered a risk-free study since the literature review does not involve the treatment or use of subject information; all the documents used are published in the bibliographic databases.

### Conflicts of interest

The authors declare no conflicts of interest.

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### AI technology support

The authors report that they did not use Artificial Intelligence, language modeling, machine learning, or similar technologies to create or assist with the creation or editing of any of the contents of this document.

### References

1. Organización Mundial de la Salud [OMS] y Organización Internacional del Trabajo [OIT]. La brecha salarial de género en el sector de la salud y asistencial. Un análisis mundial en tiempos de COVID-19. Ginebra: OMS; 2022. Disponible en: <https://www.who.int/es/publications/i/item/9789240052895>
2. Ayaz B, Martimianakis M, Muntaner C, Nelson S. Participation of women in the health workforce in the fragile and conflict-affected countries: a scoping review. *Human Resour Health*. 2021; 19(1): 94. doi: <https://doi-10.1186/s12960-021-00635-7>
3. García-Roa EM, Tapias-Torrado L. Discrimination and exclusion of women working in the health sector in Colombia. Employment, an unfinished agenda to advance in gender equity in health. *Rev Gerenc Polit Salud*. 2013; 12(24): 226-248.
4. Dhatt R, Theobald S, Buzuzi S, Ros B, Vong S, Muraya K, et al. The role of women’s leadership and gender equity in leadership and health system strengthening. *Glob Health Epidemiol Genom*. 2017; 2: e8. doi: <https://doi.org/10.1017/ghg.2016.22>
5. Shannon G, Jansen M, Williams K, Cáceres C, Motta A, Odhiambo A, et al. Gender equality in science, medicine, and global health: where are we at and why does it matter? *Lancet*. 2019; 393(10171): 560–569. doi: [10.1016/S0140-6736\(18\)33135-0](https://doi.org/10.1016/S0140-6736(18)33135-0)
6. Global Health 50/50. The Global Health 50/50 report: how gender responsive are the world’s leading global health organizations [Internet]. Global Health 50/50. 2018. Available at: [https://globalhealth5050.org/wp-content/uploads/2018/06/Global-Health-5050-2018-Report\\_Findings-Recommendations\\_June.pdf](https://globalhealth5050.org/wp-content/uploads/2018/06/Global-Health-5050-2018-Report_Findings-Recommendations_June.pdf)
7. Global Health 50/50. ‘The Global Health 50/50 Report 2020: Power, Privilege and Priorities’. London: UK; 2020. Disponible en: <https://globalhealth5050.org/wp-content/uploads/2020/03/Power-Privilege-and-Priorities-2020-Global-Health-5050-Report.pdf>
8. Organización de las Naciones Unidas. Objetivos de desarrollo sostenible. Nueva York: ONU; 2015. Disponible en: <https://www.un.org/sustainabledevelopment/es/>
9. Carrizo D, Moller C. Estructuras metodológicas de revisiones sistemáticas de literatura en Ingeniería de Software: un estudio de mapeo sistemático. *Ingeniare Rev Chil Ing*. 2018; 26: 45-54. doi: <https://dx.doi.org/10.4067/S0718-33052018000500045>
10. Florián I, Lara M, De la Hoz M. Mujeres trabajadoras en el sector de la salud Colombia. Programa de Las Naciones Unidas para el Desarrollo y Mpodera. 2022. ISSN 2806-0687
11. Acosta M, Castro D, Bravo D. Carga laboral en personal de salud asistencial y administrativo en una institución de II nivel en Colombia. *Inv Enferm Im Desarrollo*. 2022; 24. doi: <https://doi.org/10.11144/Javeriana.ie24.clps>
12. Gupta N, Diallo K, Zurn P, Dal-Poz M. Assessing human resources for health: what can be learned from labour force surveys? *Hum Resour Health*. 2003; 1(1): 5. doi: [10.1186/1478-4491-1-5](https://doi.org/10.1186/1478-4491-1-5)

13. Shannon G, Minckas N, Tan D, Haghparast-Bidgoli H, Batura N, Mannell J. Feminisation of the health workforce and wage conditions of health professions: an exploratory analysis. *Human Res Health*. 2019; 17(1): 72. doi: [10.1186/s12960-019-0406-0](https://doi.org/10.1186/s12960-019-0406-0)
14. Cohen M, Kiran T. Closing the gender pay gap in Canadian medicine. *CMAJ*. 2020; 192(35). doi: [10.1503/cmaj.200375](https://doi.org/10.1503/cmaj.200375)
15. Widdifield J, Gatley J, Pope J, Barber C, Kuriya B, Eder L, et al. Feminization of the rheumatology workforce: A longitudinal evaluation of patient volumes, practice sizes, and physician remuneration. *J Rheumatol*. 2021; 48(7): 1090–1097. doi: [10.3899/jrheum.201166](https://doi.org/10.3899/jrheum.201166)
16. Tiwari R, Wildschut-February A, Nkonki L, English R, Karangwa I, Chikte U. Reflecting on the current scenario and forecasting the future demand for medical doctors in South Africa up to 2030: towards equal representation of women. 19(1): 27. doi: [10.1186/s12960-021-00567-2](https://doi.org/10.1186/s12960-021-00567-2)
17. Kuhlmann E, Ovsieko P, Kurmeyer K, Gutiérrez-Lobos K, Steinböck S, Knorrung M, et al. Closing the gender leadership gap: A multi-centre cross-country comparison of women in management and leadership in academic health centres in the European Union. *Human Resources for Health*. 2017; 15(1): 2. doi: <https://doi.org/10.1186/s12960-016-0175-y>
18. Mohsin M, Syed J. The missing doctors — An analysis of educated women and female domesticity in Pakistan. *Gender Work Organ*. 2020; 27: 1077–1102. <https://doi.org/10.1111/gwao.12444>
19. Aspiazu E. Las condiciones laborales de las y los enfermeros en Argentina: entre la profesionalización y la precariedad del cuidado en la salud. *Trabajo y sociedad*. 2017; 28: 11-35.
20. Arrizabalaga P, Abellana R, Viñas O, Merino A, Ascaso A. Women doctors and their careers in a large university hospital in Spain at the beginning of the 21st century. *Human Resour Health*. 2015; 13(15). doi: [10.1186/s12960-015-0008-4](https://doi.org/10.1186/s12960-015-0008-4)
21. Cáceres Manrique FM, Amaya Castellanos CI, Rivero Rubio C. Gender inequalities in the health setting: The case of medicine. *Aquichan*. 2019; 19(2): e1927. doi: [10.5294/aqui.2019.19.2.7](https://doi.org/10.5294/aqui.2019.19.2.7)
22. Bogler T, Lazare K, Rambihar V. Female family physicians and the first 5 years: In pursuit of gender equity, work-life integration, and wellness. *Can Fam Physician*. 2019; 65(8): 585-588.
23. Morcillo-Martínez JM, Martínez-Salvador IM, Ochando-Ramírez MV. Gender perspective and access to positions of responsibility in social and health care institutions from the perspective of social work. *Generos*. 2023; 12(1). doi: [10.17583/generos.11246](https://doi.org/10.17583/generos.11246)
24. Reimann S, Alfermann D. Female doctors in conflict: How gendering processes in German hospitals influence female physicians' careers. *Gen Issues*. 2018; 35: 52-70. doi: <https://doi.org/10.1007/s12147-017-9186-9>
25. Harding T. Swimming against the malestream: men choosing nursing as a career. *Nursing praxis in New Zealand inc*. 2009; 25(3): 4-16.
26. Keynejad R, Mekonnen F, Qabile A, Moussa J, Abdillahi M, Haji M, et al. Gender equality in the global health workplace: learning from a Somaliland–UK paired institutional partnership. *BMJ Global Health*. 2018; 3(6). doi: <https://doi.org/10.1136/bmjgh-2018-001073>
27. Szabo S, Nove A, Matthews Z, Bajracharya A, Dhillon I, Singh D, et al. Health workforce demography: a framework to improve understanding of the health workforce and support achievement of the Sustainable Development Goals. *Hum Resour Health*. 2020; 18(7). doi: <https://doi.org/10.1186/s12960-020-0445-6>
28. Bourgeault I, Runnels V, Atanackovic J, Spitzer D, Walton-Roberts M. Hiding in plain sight: the absence of consideration of the gendered dimensions in 'source' country perspectives on health worker migration. *Hum Resour Health*. 2021; 19(1): 40. doi: [10.1186/s12960-021-00571-6](https://doi.org/10.1186/s12960-021-00571-6)
29. Zeinali Z, Muraya K, Govender V, Molyneux S. Intersectionality and global health leadership: parity is not enough. *Hum Resour Health*. 2019; 17: 29-32. doi: [10.1186/s12960-019-0367-3](https://doi.org/10.1186/s12960-019-0367-3)
30. Kalbarczyk A, Rao A, Adebayo A, Decker E, Gerber S, Morgan R. The influence of gender dynamics on polio eradication efforts at the community, workplace, and organizational level. 2021; *Glob Health Res Policy*. 2021; 6(1): 19. doi: [10.1186/s41256-021-00203-5](https://doi.org/10.1186/s41256-021-00203-5)
31. Bhat B, Majid J, Gurumayum K, Dar M, Mary P. Promoting gender equality for women's leadership. *Int J Early Childhood Spec Edu*. 2022; 14(5). doi: [10.9756/INTJECSE/V14I5.397](https://doi.org/10.9756/INTJECSE/V14I5.397)
32. Global Health. Equality Works. 2019. Disponible en: <https://globalhealth5050.org/wp-content/uploads/2019/03/Equality-Works.pdf>
33. Global Health. ¿Boards for all? 2022. Disponible en: [https://globalhealth5050.org/wp-content/themes/global-health/reports/2022/media/Boards%20for%20All\\_Global%20Health%2050\\_50%20Report\\_OnlineMarch2022.pdf](https://globalhealth5050.org/wp-content/themes/global-health/reports/2022/media/Boards%20for%20All_Global%20Health%2050_50%20Report_OnlineMarch2022.pdf)

34. Tomizawa Y. Women in surgery: little change in gender equality in Japanese medical societies over the past 3 years. *Surg Today*. 2013; 43(10): 1202 – 1205. doi: [10.1007/s00595-012-0447-7](https://doi.org/10.1007/s00595-012-0447-7)
35. Sarmiento D, Himmler A, Cabrera C, Olmedo S, Biondi A, Di Saverio S. Gender disparities in Ecuador: a survey study of the under-representation of women in surgery. *Updates Surg*. 2021; 73(5): 2009-2015. doi: [10.1007/s13304-020-00964-7](https://doi.org/10.1007/s13304-020-00964-7)
36. Bukhari N, Manzoor M, Rasheed H, Nayyer B, Malik M, Babar Z. A step towards gender equity to strengthen the pharmaceutical workforce during COVID-19. *J Pharm Policy Pract*. 2020; 13:15. doi: [10.1186/s40545-020-00215-5](https://doi.org/10.1186/s40545-020-00215-5)
37. Spyres M, Moore E, Ruha A, O'Connor A. Moving towards gender equality in medical toxicology. *J Med Toxicol*. 2019; 15, 217–219. doi: [10.1007/s13181-019-00737-8](https://doi.org/10.1007/s13181-019-00737-8)
38. Sethi S, Edwards J, Webb A, Mendoza S, Kumar A, Chae S. Addressing gender disparity: Increase in female leadership increases gender equality in program director and fellow ranks. *Dig Dis Sci*. 2022; 67(2): 357-363. doi: [10.1007/s10620-020-06686-5](https://doi.org/10.1007/s10620-020-06686-5)
39. Meagher K, Khaity M, Hafez S, Rodo M, El-Achi N, Patel P. Strengthening health systems and peacebuilding through women's leadership: a qualitative study. *Global Health*. 2023; 19(1): 21. doi: [10.1186/s12992-023-00920-1](https://doi.org/10.1186/s12992-023-00920-1)
40. Muktar S, Desta B, Damte H, Heyi W, Gurmamo E, Abebe M, et al. Exploring the opportunities and challenges of female health leaders in three regional states of Ethiopia: a phenomenological study. *BMC Public Health*. 2022; 22(1): 1471. doi: [10.1186/s12889-022-13871-w](https://doi.org/10.1186/s12889-022-13871-w)
41. Gupta N, Balcom S, Singh P. Looking beyond parity: Gender wage gaps and the leadership labyrinth in the Canadian healthcare management workforce. *Health Manage Forum*. 2023; 36(1), 49-54. doi: [10.1177/08404704221104435](https://doi.org/10.1177/08404704221104435)
42. Maini R, Hotchkiss D, Borghi J. A cross-sectional study of the income sources of primary care health workers in the Democratic Republic of Congo. *Hum Resour Health*. 2017; 15(1): 17. doi: [10.1186/s12960-017-0185-4](https://doi.org/10.1186/s12960-017-0185-4)
43. Gupta N, Balcom S, Singh P. Gender composition and wage gaps in the Canadian health policy research workforce in comparative perspective. *Hum Resour Health*. 2022; 20(1): 78. doi: [10.1186/s12960-022-00774-5](https://doi.org/10.1186/s12960-022-00774-5)
44. Ved R, Scott K, Gupta G, Ummer O. How are gender inequalities facing India's one million ASHAs being addressed? Policy origins and adaptations for the world's largest all-female community health worker programme. *Hum Resour Health*. 2019; 17(1): 3. doi: [10.1186/s12960-018-0338-0](https://doi.org/10.1186/s12960-018-0338-0)
45. Miao Y, Li L, Bian Y. Gender differences in job quality and job satisfaction among doctors in rural western China. *BMC Health Serv Res*. 2017; 17(1): 848. doi: [10.1186/s12913-017-2786-y](https://doi.org/10.1186/s12913-017-2786-y)
46. Caballero I, Contreras F, Vega E, Gómez J. Síndrome de Burnout y calidad de vida laboral en el personal asistencial de una institución de salud en Bogotá. *Inf Psicol*. 2017; 17(1): 87-105. doi: <https://doi.org/10.18566/infpsic.v17n1a05>
47. Ozbilgin M, Tsouroufli M, Smith M. Understanding the interplay of time, gender, and professionalism in hospital medicine in the UK. *Soc Sci Medicine*. 2011; 72(10): 1588–1594. doi: <https://doi.org/10.1016/j.socscimed.2011.03.030>
48. Morgan R, Ayiasi R, Barman D, Buzuzi S, Ssemugabo C, Ezumah N, et al. Gendered health systems: evidence from low- and middle-income countries. *Health Res Policy Syst*. 2018; 16(1): 58. doi: [10.1186/s12961-018-0338-5](https://doi.org/10.1186/s12961-018-0338-5)
49. Çoban BN, İnal-Önal E. Determination of health workers' perceptions of the disaster management process and gender inequality: the case of a state hospital in Turkey. *Int J Emerg Serv*. 2023; 12(2): 186-196. doi: [10.1108/IJES-08-2022-0044](https://doi.org/10.1108/IJES-08-2022-0044)
50. Musoke D, Ssemugabo C, Ndejjo R, Ekirapa-Kiracho E, George A. Reflecting strategic and conforming gendered experiences of community health workers using photovoice in rural Wakiso district, Uganda. *Hum Resour Health*. 2018; 16(1): 41. doi: <https://doi.org/10.1186/s12960-018-0306-8>
51. McKague K, Harrison S, Musoke J. Gender intentional approaches to enhance health social enterprises in Africa: a qualitative study of constraints and strategies. *Int J Equity Health*. 2021; 20(1). doi: [10.1186/s12939-021-01427-0](https://doi.org/10.1186/s12939-021-01427-0)
52. Newman C, Fogarty L, Makoe L, Reavely E. Occupational segregation, gender essentialism and male primacy as major barriers to equity in HIV/AIDS caregiving: Findings from Lesotho. *Int J Equity Health*. 2011; 10(24). doi: [10.1186/1475-9276-10-24](https://doi.org/10.1186/1475-9276-10-24)
53. Cho M, Levin R. Implementación del plan de acción de recursos humanos en salud y la respuesta a la pandemia por la COVID-19. *Rev Panam Salud Publica*. 2022; 46: e52. doi: <https://doi.org/10.26633/RPSP.2022.52>
54. Hay K, McDougal L, Percival V, Henry S, Klugman J, Wurie H, et al. Disrupting gender norms in health systems: making the case for change. *Lancet*. 2019; 393(10190): 2535-2549. doi: [10.1016/S0140-6736\(19\)30648-8](https://doi.org/10.1016/S0140-6736(19)30648-8)