

# Healthcare employment landscape: comparing job markets for professionals in developed and developing countries

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## Abstract

**Purpose** – This literature review aims to assess the current research on healthcare job availability and skilled professionals. The objective of this research is to identify challenges caused by the imbalance between healthcare service demand and qualified professionals and propose potential solutions and future research directions.

**Design/methodology/approach** – The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method was employed as the guiding framework for conducting this review. A qualitative research design analyzed 38 peer-reviewed, evidence-based research works from 50 journal publications. Inclusion criteria focused on empirical studies, observational research and comprehensive reviews published within the last ten years. Thematic and discourse analysis categorized themes and factors explored in selected publications.

**Findings** – The findings highlight significant challenges in the healthcare sector regarding job availability and skilled professionals. Developed countries face understaffed healthcare facilities, resulting in increased workloads and compromised care. Developing countries experience high rates of unemployment among healthcare graduates due to limited resources and mentorship.

**Practical implications** – Improving educational infrastructure, expanding training opportunities and increasing healthcare investments are crucial for nurturing a skilled workforce. Implementing effective retention policies, fostering international collaborations and addressing socioeconomic determinants can create a sustainable job market.

**Originality/value** – The healthcare sector faces critical challenges in balancing job availability and skilled professionals. Strategic solutions are proposed to create a sustainable and equitable healthcare workforce. By



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implementing recommendations and conducting further research, access to quality healthcare and global public health outcomes can be improved.

**Keywords** Health care, Job market, Socioeconomic challenges, Health facilities, Unemployment

**Paper type** Literature review

## Introduction

The healthcare sector is crucial for public well-being by addressing various health needs and improving the quality of life. Its dedicated workforce of doctors, nurses, therapists and support staff plays a vital role in delivering quality care and supporting patients' healing and recovery journeys. Their commitment, collaboration and continuous learning make healthcare an indispensable pillar of society, benefiting millions worldwide.

The global population is on the rise, and this, coupled with the limited availability of healthcare services, continues to drive up the cost of medical services worldwide. In developed countries, healthcare systems generally enjoy better funding, advanced infrastructure and access to cutting-edge medical technologies. However, they face challenges related to an aging population, increasing chronic diseases, and rising healthcare costs. Workforce shortages and maldistribution of healthcare professionals can impact the quality of care, especially in rural and underserved areas. Moreover, regulatory complexities and the need for continuous technological advancements pose ongoing challenges for these countries ([Barbazzeni et al., 2022](#); [Kruk et al., 2018](#); [Owusu et al., 2017](#)).

In developing countries, limited financial resources and infrastructure hinder the accessibility and quality of healthcare services. These nations often face a shortage of skilled healthcare professionals due to factors such as the brain drain, where qualified professionals seek better opportunities abroad, leaving local healthcare systems understaffed. Additionally, inadequate educational resources and training opportunities contribute to a mismatch between the skills of the workforce and the healthcare needs of the population. Developing countries may also struggle with the burden of infectious diseases and face challenges in deploying healthcare innovations due to resource constraints ([Owusu et al., 2017](#); [Peters et al., 2020](#); [Filip et al., 2022](#); [Dash et al., 2019](#)).

Third-world countries face significant barriers in delivering quality healthcare services due to extreme poverty and limited infrastructure. Many individuals lack access to basic medical care, and the scarcity of medical facilities, trained personnel and essential supplies exacerbates the situation. Issues like inadequate sanitation, unsafe drinking water and malnutrition compound public health challenges. The lack of access to primary healthcare leads to preventable deaths and a higher burden of communicable diseases ([World Health Organization, 2017](#); [Oleribe et al., 2019](#)).

To address these challenges, tailored solutions are required. Developed countries can focus on workforce planning, resource allocation and technology to maintain high-quality healthcare. Developing countries need investments in healthcare infrastructure and education for healthcare professionals to enhance access and improve care quality. For third-world countries, international aid, partnerships and sustainable development efforts are crucial to build basic healthcare infrastructure and combat preventable diseases. Collaborative efforts are essential in tackling healthcare disparities worldwide.

Regardless of the country's development status, addressing healthcare barriers requires a multi-pronged approach involving governments, healthcare organizations, international agencies and other stakeholders. Collaboration, research, and evidence-based policymaking are essential to achieving sustainable and equitable healthcare systems worldwide. Moreover, promoting health education, disease prevention and public health initiatives can help mitigate the burden of healthcare challenges in all countries.

### Healthcare professionals and job market

Healthcare employees, ranging from nurses, physicians, pharmacists, allied health professionals and dentists, among others, form the backbone of contemporary healthcare systems. Unfortunately, the lack of a proper administrative balance in the supply of employees and the available work opportunities continues to inhibit the achievement of positive public health outcomes around the world (Cole Edmonson *et al.*, 2017). Fortunately, scholars and professional stakeholders in healthcare research continue to provide evidence-based assessment of the problem. For instance, the statistical assessment of unemployment trends in Western countries varies significantly with those from developing countries (Mason *et al.*, 2022). Comparing data between Western, developing and third-world countries is crucial for understanding healthcare disparities and informing global health policies. It helps target interventions, improves health systems and fosters collaboration among nations. By sharing best practices and promoting health diplomacy, we can work towards health equity and positive health outcomes for all. Such comparative research plays a vital role in advancing public health on a global scale.

This systematic imbalance contributes to limiting the accessibility, affordability and reliability of available healthcare personnel to the detriment of positive public health outcomes. Hence, it is important to define the specific provisions and factors that have led to the development of the current public health situation around the world. The regional disparities in the availability of healthcare professionals and healthcare jobs remain a contributing factor to the prevailing public health conditions in different countries. For instance, in Western countries, there's a high demand for skilled healthcare professionals, causing staff shortages (Poon *et al.*, 2022). Consequently, the available members of the workforce are forced to work excessively, introducing a direct effect on the service quality while increasing the costs of healthcare services to the end clients (Kruk *et al.*, 2018). Despite the availability of advanced medical solutions, digital healthcare technologies and effective medical financing schemes, the lack of sufficient members of the workforce to staff and use the available resources is detrimental to public health in Western countries. Furthermore, evidence indicates further deterioration of available healthcare professionals in Western countries despite the prospect of increased populations and higher demand for qualified healthcare professionals.

In contrast with the limited availability of medical professionals in Western countries, the lack of stable, reliable and long-term employment opportunities in developing countries is detrimental to public health. Factors such as economic instability, inadequate funding for healthcare and political uncertainties can result in a lack of job security and proper compensation for healthcare workers. Consider a developing country with a shortage of doctors and nurses due to limited resources and unstable job prospects. The insufficient number of medical professionals in these regions can lead to longer wait times, reduced access to healthcare services, and compromised quality of care. Additionally, the lack of a skilled workforce may hinder the early detection and timely treatment of diseases, further impacting public health.

In developing countries, new healthcare graduates face challenges due to a higher number of graduates than available job openings, creating an intense competition for limited positions. The lack of mentorship and internship opportunities further hinders their ability to gain practical experience and build essential skills. Financial constraints in healthcare facilities also contribute to the scarcity of mentorship programs, making it difficult for new graduates to find adequate support in their early careers. This situation perpetuates a cycle of underemployment and skill mismatch, affecting job satisfaction and the optimal utilization of their potential in the healthcare sector (Jeske and Linehan, 2020).

Moreover, highly experienced healthcare professionals seek employment opportunities from developed countries, resulting in an overall brain drain in developing countries

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(Poon *et al.*, 2022). From a different perspective, healthcare professionals in developing countries have to contend and work with limited financial and infrastructural resources to deliver medical services to a rapidly growing population. In essence, while a considerable portion of qualified healthcare graduates lack employment opportunities in developing nations, the employed portion of the workforce contends with limited resources to deliver their professional mandate and improve public health outcomes.

Despite the development and advocacy for globalization, particularly for important professions such as healthcare, there is limited systematic synchronization to address the unemployment gap. For instance, insufficient diplomatic relations and engagements to ease the immigration of healthcare workers remain a challenge for both developing and developed countries (Kaihlainen *et al.*, 2019). Furthermore, a lack of supportive systems to standardize medical services to international levels inhibits the intake of immigrant professionals in healthcare to meet the demand, particularly in the Western countries (Makuku and Mosadeghrad, 2022). Worse still, concerns regarding the implications of the widespread brain drain that works to the detriment of developing countries remain a crucial barrier to the proper globalization of the healthcare workforce. This literature review indicates existing gaps in the healthcare sector that are responsible for the continued compromise to globalization of medical staff. Furthermore, scholars highlight the different factors that derail the implementation of corrective measures to achieve positive public health outcomes.

### **Social and economic challenges**

Healthcare professionals in developing and third-world countries experience social and economic inhibitors of exemplary performance in public health. From an economic standpoint, limited allocation of financial resources to public health introduces operational strains for medical establishments and inhibits the achievement of positive treatment outcomes (Haldane *et al.*, 2021). In other words, the lack of financial resources to finance operations and hire healthcare professionals to staff medical facilities introduces significant strains on the available resources (Shah *et al.*, 2021). For instance, the high number of patients presenting in healthcare facilities necessitates proper equipment and administration of medical facilities that prove to be a challenge in developing countries. In addition to the economic constraints facing healthcare professionals from developing countries, there is a social issue that worsens the plight of the trained medical personnel.

Social issues in developing countries have significant effects on the performance of public health institutions and medical professionals. First, limited intake and acceptance of new treatment solutions and medications remain a critical challenge for medical professionals (Shah *et al.*, 2021). In addition to navigating the scientific and financial aspects of developmental research in public health, medical professionals have to assess the social implications and appreciation of such interventions. Second, healthcare professionals in developing countries have to navigate unfortunate social realities, including unemployment and the unequal distribution of opportunities of development (Dunlop *et al.*, 2020; Darin-Mattsson *et al.*, 2017). The combination of the social and economic challenges facing professionals in healthcare has direct implications for public health outcomes in developing countries. Thematic assessment of the issue reveals that working and operating in developing countries requires comprehensive professional commitment and integration of financial advocacy to advance public health interests, while economic challenges form the bulk of problems facing healthcare workers.

### **Job satisfaction and career prospects**

One of the significant factors influencing job satisfaction among healthcare professionals in developed countries is higher salaries. Research has shown that adequate compensation

positively correlates with job satisfaction (Girma *et al.*, 2021; Chen *et al.*, 2012). Healthcare professionals in developed countries receive higher wages, leading to better job satisfaction and an improved quality of life. However, recent doctor strikes for pay reform should be considered in the context of disparities between developed and developing countries' salaries. In developing nations, healthcare workers often face lower wages relative to the cost of living, impacting their well-being despite their crucial contributions. The call for pay reform in developed countries may aim to address fair compensation and reflect the global context of salary disparities (Hongoro and Normand, 2006).

Better working conditions also play a crucial role in the job satisfaction of healthcare professionals in developed countries. These professionals benefit from well-equipped facilities, modern infrastructure and a supportive work environment. Access to advanced technology is another significant advantage enjoyed by healthcare professionals in developed nations. They have access to state-of-the-art medical equipment and technological advancements that facilitate their work, leading to increased job satisfaction (Girma *et al.*, 2021; Chen *et al.*, 2022).

Opportunities for professional growth and development are more abundant in developed countries. Healthcare professionals in these countries have access to continuous education, training programs and career advancement opportunities. This fosters personal and professional growth, allowing them to expand their knowledge and expertise and contributing to higher levels of job satisfaction (Girma *et al.*, 2021; Chen *et al.*, 2022).

In contrast, healthcare professionals in developing countries often face lower job satisfaction levels due to a range of challenges. One of the primary factors contributing to lower job satisfaction is inadequate resources. Developing countries often struggle with limited funding, resulting in a lack of essential medical equipment, supplies and infrastructure. This not only hampers the quality of patient care but also negatively impacts the job satisfaction of healthcare professionals (Tran *et al.*, 2013; Tenaw *et al.*, 2021).

Limited recognition and appreciation for their work is another significant issue faced by healthcare professionals in developing countries. Due to various socioeconomic factors and resource constraints, healthcare professionals in these nations may not receive the recognition they deserve, which can lead to lower job satisfaction levels (Girma *et al.*, 2021; Tenaw *et al.*, 2021).

Lower compensation is a common challenge faced by healthcare professionals in developing countries. Due to economic disparities and limited financial resources, healthcare professionals in these nations often receive lower salaries than their counterparts in developed countries. Insufficient compensation can contribute to lower job satisfaction and may lead to professionals seeking better opportunities elsewhere (Tenaw *et al.*, 2021).

In conclusion, the job satisfaction and career prospects of healthcare professionals differ significantly between developed and developing countries. Healthcare professionals in developed countries enjoy higher job satisfaction due to factors such as higher salaries, better working conditions, access to advanced technology and opportunities for professional growth and development. On the other hand, healthcare professionals in developing countries often face lower job satisfaction levels due to inadequate resources, limited recognition and lower compensation. Bridging the gap in job satisfaction between developed and developing countries is crucial for ensuring the well-being of healthcare professionals and the delivery of quality healthcare services worldwide.

## Method

The PRISMA method was employed as the guiding framework for conducting this review. The investigation utilized a qualitative research design to assess the relationship between healthcare job availability and skilled professionals. Out of 50 selected journal publications,

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38 peer-reviewed and evidence-based research works were shortlisted. The inclusion criteria involved empirical studies, observational research and comprehensive reviews, resulting in 38 relevant research works. The review process involved open-source journal publications and the Google Scholar database, with a focus on articles published within the last ten years for current insights. A thematic analysis was employed together with the discourse analysis to assess the provisions and findings of the publications. Furthermore, special attention was accorded to the methods of data collection and the validity of information garnered from secondary sources. The research engagement employed all the provisions of ethical conduct in research. Therefore, there were no ethical challenges or issues encountered during the thematic and discourse analyses.

### Findings

Articles are tabulated with categorized themes in [Table 1](#).

The results indicate a consensus that the unemployment of health professionals and the staffing challenges facing existing healthcare establishments will continue to inhibit positive public health outcomes. While some argue that unemployment is a direct result of poor economic performance in developing countries, others posit that unemployment dictates the failure of public health stakeholders to integrate new graduates into the workforce ([Pratap et al., 2021](#)). On the other hand, the evidence reflects the unfortunate future of public health outcomes in developed countries due to the ongoing understaffing of healthcare facilities.

Furthermore, scholars posit that continued challenges in sourcing healthcare professionals from other countries work against the welfare of the public. Nonetheless, most studies foresee a positive future upon the implementation of various solutions to combat the public health challenge. Besides, optimism about continued research on public health and staff shortage issues remains a reality as revealed by different scholars and professional stakeholders in public health.

The existing imbalance between the number of healthcare jobs and the availability of skilled professionals is a challenge for all stakeholders in public health. Evidence reveals that practicing healthcare professionals have to contend with the increasing demand for high-quality services while serving more clients per unit shift. Meanwhile, unemployed professionals, particularly in developing countries, have a difficult time searching for well-paying and long-term jobs to kick-start their careers. Unfortunately, logistical and administrative challenges in connecting healthcare professionals to jobs present a problem for both immigration departments and the home country's healthcare systems. Solving the public health challenge in a timely and effective manner requires collective stakeholder contributions and commitment to the welfare of the public. High unemployment rates amid rising demand and the cost of high-quality healthcare services on a global scale necessitate a systematic assessment of all the challenges and the implementation of lasting solutions. The current literature review indicates the extensive risks of continued intense staffing challenges amid a rise in demand for medical care around the world.

### Solutions and recommendations

Despite the existence of professional administrative challenges in balancing the number of jobs and the available skilled professionals, progressive efforts to address this problem are gaining academic and professional traction. For instance, developing countries are working hard to create an enabling environment for direct foreign and local investments in public health ([Tessema et al., 2021](#)). The focus on job creation and advancement of medical facilities accrued from such investments promises to change the plight of the public and enhance the fortunes of medical professionals in developing countries, particularly.

Themes/Factors	Authors/Year/Source/Title
Understaffing, workload and challenges for leadership	Andel, S.A. <i>et al.</i> 2021 <i>Journal of Advanced Nursing</i> Safety implications of different forms of understaffing among nurses during the Covid-19 pandemic (Andel <i>et al.</i> , 2022)
	Kovacs, R. and Lagarde, M. 2022 <i>Journal of Health Economics</i> Does high workload reduce the quality of healthcare? Evidence from rural Senegal (Kovacs and Lagarde, 2022)
Administration	Figueroa, C.A. <i>et al.</i> 2019 <i>BMC Health Services Research</i> Priorities and challenges for Health Leadership and Workforce Management globally: A rapid review (Figueroa <i>et al.</i> , 2019)
	Davis, B., Bankhead-Kendall, B.K. and Dumas, R.P 2022 Health and Technology A review of covid-19's impact on modern medical systems from A Health Organization Management Perspective (Davis <i>et al.</i> , 2022)
Improvement	Barbazzeni, B., Haider, S. and Friebe, M 2022 <i>Frontiers in Public Health</i> Engaging through awareness: Purpose-driven framework development to evaluate and develop future business strategies with exponential technologies toward healthcare democratization (Barbazzeni <i>et al.</i> , 2022)
	Dash, S. <i>et al.</i> 2019 Journal of Big Data Big Data in Healthcare: Management, analysis and future prospects (Dash <i>et al.</i> , 2019)
Competency optimization	Hanson, K. <i>et al.</i> 2020 <i>The Lancet Global Health</i> The Lancet Global Health Commission on Financing Primary Health Care: Putting people at the center (Hanson <i>et al.</i> , 2022)
	Edmonson, C. <i>et al.</i> 2022 The Online Journal of Issues in Nursing Emerging global health issues: A nurse's role (Cole Edmonson <i>et al.</i> , 2017)
	Kaihlanen, A.-M., Hietapakka, L. and Heponiemi, T 2019 <i>BMC Nursing</i> Increasing cultural awareness: Qualitative study of nurses' perceptions about cultural competence training (Kaihlanen <i>et al.</i> , 2019)
	Makuku, R. and Mosadeghrad, A.M. 2022 Journal of Public Health Policy Health workforce retention in low-income settings: An application of the root stem model (Makuku and Mosadeghrad, 2022)
	Jeske, D. and Linehan, C. 2019 <i>Journal of Work-Applied Management</i> Mentoring and skill development in e-internships (Jeske and Linehan, 2020)
	Kruk, M.E. <i>et al.</i> 2018 The Lancet Global Health High-quality health systems in the Sustainable Development Goals Era: Time for a revolution (Kruk <i>et al.</i> , 2018)

**Table: 1.**  
Illustration of the themes and factors affecting the job markets by Salman Butt

(continued)

Themes/Factors	Authors/Year/Source/Title
Workforce management	Makuku, R. and Mosadeghrad, A.M. 2022 <i>Journal of Public Health Policy</i> Health workforce retention in low-income settings: An application of the root stem model (Makuku and Mosadeghrad, 2022)
	Mason, A. and Lee, R 2022 <i>Population and Development Review</i> Six ways population change will affect the global economy (Mason <i>et al.</i> , 2022)
	Poon, Y.-S.R. <i>et al.</i> 2022 <i>Human Resources for Health</i> A global overview of healthcare workers' turnover intention amid covid-19 pandemic: A systematic review with future directions (Poon <i>et al.</i> , 2022)
Current trends	Najib, M., Salloum, A. and Juni, M.H. 2019 <i>International Journal of Public Health and Clinical Sciences</i> Brain-drain phenomenon among healthcare workers (Najib <i>et al.</i> , 2019)
	Pratap, P. <i>et al.</i> 2021 <i>International Journal of Environmental Research and Public Health</i> Public Health Impacts of Underemployment and Unemployment in the United States: Exploring Perceptions, Gaps and Opportunities (Pratap <i>et al.</i> , 2021)
	Razu, S.R. <i>et al.</i> 2021 <i>Frontiers in Public Health</i> Challenges faced by healthcare professionals during the COVID-19 pandemic: A qualitative inquiry from Bangladesh (Razu <i>et al.</i> , 2021)
Socioeconomical issues	Darin-Mattsson, A., Fors, S. and Kåreholt, I. 2017 <i>International Journal for Equity in Health</i> Different indicators of socioeconomic status and their relative importance as determinants of health in old age (Darin-Mattsson <i>et al.</i> , 2017)
	Tessema, G.A. <i>et al.</i> 2021 <i>BMJ Global Health</i> The COVID-19 pandemic and healthcare systems in Africa: A scoping review of preparedness, impact and response (Tessema <i>et al.</i> , 2021)
	Dunlop, A. <i>et al.</i> 2020 <i>Harm Reduction Journal</i> Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic (Dunlop <i>et al.</i> , 2020)
Strategic intervention	Haldane, V. <i>et al.</i> 2021 <i>Nature Medicine</i> Health Systems Resilience in managing the COVID-19 pandemic: Lessons from 28 countries (Haldane <i>et al.</i> , 2021)
	Mathieson, A., Grande, G. and Luker, K. 2018 <i>Primary Health Care Research &amp; Development</i> Strategies, facilitators and barriers to implementation of evidence-based practice in Community Nursing: A systematic mixed-studies review and qualitative synthesis (Naughten <i>et al.</i> , 2023)
	Shah, M.K. <i>et al.</i> 2021 <i>JAMA Network Open</i> Prevalence of and factors associated with nurse burnout in the US (Shah <i>et al.</i> , 2021)

Table: 1.

In contrast, the rise of professional globalization and the facilitation of international transfer of medical professionals in a sustainable scheme promise to address staffing shortages in developed countries. For instance, special visa programs, bilateral agreements and



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international internship programs continue to offer sustainable solutions to upset the staffing deficit around the world. Therefore, it is correct to recognize and appreciate the optimistic nature of current and future trends toward balanced jobs and skilled members of the healthcare workforce.

To bridge the gaps in the job market and create a sustainable and equitable environment for healthcare professionals, both developed and developing countries must adopt strategic solutions. These solutions encompass various aspects, including improving educational infrastructure, expanding training opportunities, increasing investments in healthcare, implementing effective retention policies and fostering international collaborations. Additionally, addressing the underlying socioeconomic determinants is crucial for ensuring long-term success. Here, we will explore these recommendations based on insights from multiple studies.

First, improving educational infrastructure is essential to prepare healthcare professionals for the job market. The *Harvard Business Review* emphasizes the need to bridge the global skills gap by focusing on the readiness of the young workforce (Moldoveanu *et al.*, 2022). By enhancing educational institutions, providing quality training and aligning curricula with industry requirements, countries can ensure that healthcare professionals possess the necessary skills and knowledge to excel in their careers. Although within an already packed curriculum this can be very challenging, prioritizing essential skills, integrating related topics and utilizing blended learning with technology can optimize the curriculum. Hands-on practical training, interdisciplinary approaches and continuous curriculum review are valuable strategies. Partnerships with healthcare providers and promoting lifelong learning further enhance healthcare professionals' preparedness and contributions to public health.

Expanding training opportunities is another vital aspect of addressing job market gaps. The World Bank Group highlights the limited availability of quality jobs in developing countries and the need to improve job quality for the growing working-age population (Jobs and development, n.d.). By offering vocational training programs, apprenticeships and continuous professional development opportunities, countries can equip healthcare professionals with the specialized skills demanded by the healthcare industry and facilitate their career progression.

Investing in healthcare is paramount to foster job creation and improvement. The Boston Consulting Group highlights the need for job creation to fight poverty and support economic development. By increasing investments in healthcare infrastructure, governments can not only enhance the quality of healthcare services but also generate employment opportunities for healthcare professionals. This, in turn, contributes to reducing unemployment rates and promoting economic growth.

Implementing effective retention policies is crucial to address the challenges of talent retention in the healthcare sector. The Jobs and Development Conference 2020, organized by the World Bank, emphasizes the importance of protecting the poor and vulnerable and restoring livelihoods and jobs. Countries can introduce initiatives such as competitive salaries, career advancement prospects, and work-life balance measures to attract and retain healthcare professionals. Additionally, creating supportive working environments and offering professional development opportunities can enhance job satisfaction and decrease turnover rates.

Fostering international collaborations plays a significant role in addressing job market gaps. A practical guide for private sector companies highlights the business case for tackling skill gaps in developing countries through collaborative efforts (Bridging the skills gaps, n.d.) By promoting partnerships between educational institutions, healthcare organizations and international stakeholders, countries can benefit from knowledge transfer, exchange of best practices and global expertise. This facilitates the alignment of healthcare education and

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training programs with international standards, ensuring that healthcare professionals are globally competitive.

Addressing the underlying socioeconomic determinants is crucial for creating a sustainable and equitable job market for healthcare professionals. This also highlights the importance of closing skills gaps through targeted measures implemented in the workforce, suppliers and local communities. Governments can implement policies that address income inequality, improve access to education and healthcare services, and promote social mobility. By focusing on these determinants, countries can create an enabling environment that supports the development and growth of a skilled healthcare workforce.

### **Future research directions**

Moving forward, there are several promising directions for future research in the area of healthcare job availability and the number of skilled professionals. Longitudinal studies should be conducted to track healthcare job trends and workforce dynamics over an extended period, aiming to identify the underlying causes of workforce imbalances. Additionally, cross-country comparative studies could shed light on successful strategies employed in different regions to address this issue. The impact of technology on healthcare job requirements and workforce distribution should also be thoroughly investigated to understand its implications for the future. Furthermore, exploring factors influencing workforce satisfaction and burnout is crucial to improve retention rates and enhance patient outcomes. Researching the effectiveness of educational programs in producing skilled healthcare professionals can provide valuable insights for educational reforms. Understanding global workforce mobility patterns is essential, especially regarding the impact on healthcare job markets worldwide. Lastly, the effects of pandemics and crises on the healthcare job market and workforce dynamics must be carefully analyzed to prepare for future challenges.

### **Limitations**

However, it is important to acknowledge the limitations of this review. The decision to involve a ten-year study was driven by the need to offer an up-to-date review of the current state of the field, particularly in light of the proliferation of private medical schools and allied healthcare universities in the market, leading to an influx of graduate students without sufficient job opportunities. This phenomenon has been particularly prominent in developing countries within a specified timeframe. However, it is essential to recognize that this approach might neglect developments in the healthcare job market that took place before the selected timeframe. Moreover, the potential regional bias, with an overemphasis on developed countries, may limit the perspective on the challenges faced in developing regions. Additionally, variability in data collection methods and measures across studies could impact the accuracy of the overall analysis. Given the rapidly evolving healthcare sector, revisiting and updating conclusions over time will be necessary to ensure that the research remains relevant and informative. By addressing these limitations and pursuing the outlined future research prospects, we can work toward creating a more sustainable and equitable healthcare workforce to meet the needs of the global population.

### **Conclusion**

In conclusion, the discourse has affirmed the existence of an interrelationship between the number of jobs available and skilled professionals in the healthcare sector. The regional demographics on the nature and reasons for the imbalance between unemployed healthcare professionals and the available job opportunities reveal the urgent need to synchronize

healthcare delivery to local and international dynamics of demand and supply. While failure to recognize the need for change and implement the different solutions is detrimental to public health, the utility of evidence-based interventions to address the problem offers positive and transformative effects on public health outcomes. To bridge the gaps in the job market and create a sustainable and equitable environment for healthcare professionals, countries must implement strategic solutions. These solutions involve improving educational infrastructure, expanding training opportunities, increasing investments in healthcare, implementing effective retention policies, fostering international collaborations and addressing underlying socioeconomic determinants. By adopting these recommendations, countries can enhance the quality of healthcare services, promote economic growth and ensure that healthcare professionals have the necessary skills and support to thrive in their careers.

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