Publication Date: 30 June 2024
Archs Sci. (2024) Volume 74, Issue 3 Pages 258-264, Paper ID 2024339.
https://doi.org/10.62227/as/74339

Healthcare Human Resource Shortfall in Vietnam Compared to Select Countries in Asean

Tran Thi Hong Le[1,*], Le Chi Nhan[1] and Ha Bao Tran[1]
[1]Can Tho University of Medicine and Pharmacy, 179 Nguyen Van Cu Street, Can Tho City, VietNam.
Corresponding authors: Tran Thi Hong Le (e-mail: letran@ctump.edu.vn).

Abstract The availability of an adequate healthcare workforce is a key component in providing sufficient healthcare and attaining the Sustainable Development Goal (SDG) 3. This article has explored the general availability of healthcare workers in selected regions globally. It has gone further ahead to study the health workforce situation in Vietnam, Cambodia, and the Philippines. The article has established that there is a global shortage of healthcare workers. High-income countries have up to 6.5 more healthcare workers than developing countries. In all countries, there is an inequitable distribution of healthcare workers, with most of them preferring to work in urban centres at the expense of the rural population. In Vietnam, Cambodia, and the Philippines, there is also a healthcare workforce problem. The healthcare workforce shortage in these countries is caused by, among other factors, high cost of training, brain drain, resignations because of poor pay, long working hours, and COVID-19-related resignations. The Covid-19 pandemic placed an unexpected strain on countries' healthcare systems globally. In Southeast Asia, Vietnam, the Philippines, and Cambodia were no exception. The study has established that there is an urgent need for countries to initiate significant reforms in their health sector if they are to attain SGD 3.

Index Terms availability of health workforce, health workforce in Vietnam, healthcare staff shortage, Adequate healthcare staff

I. Introduction

Healthcare professionals provide both physical and mental health services to patients [1]. Healthcare workers are persons who assist the sick in different forms, such as treatment (doctors and nurses) or by playing a supportive role during treatment including laboratory technicians [2]. The World Health Organization [3], on its part has defined health workers as people whose primary work is to enhance the well-being of others. All these definitions point to the fact that healthcare workers are individuals whose primary role is maintaining or restoring good health. Healthcare workers include:

1) Doctors,
2) Nurses,
3) Midwives,
4) Public health professionals,
5) Laboratory technicians,
6) Health technicians,
7) Medical and non-medical technicians,
8) Personal care workers,
9) Community health workers [3].

Everyone has a right to access healthcare. Apart from the availability of healthcare facilities and the required medication, adequate and competent healthcare professionals are vital in providing health services. International instruments such as the International Covenant on Economic, Social, and Cultural Rights have articulated the right to attain the highest possible mental and physical health [4]. The International Covenant on Economic, Social and Cultural Rights [5], as adopted by the General Assembly of the United Nations on 16th December 1966, States in Article 12. 1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. Then of utmost relevance to this research article is Article 12. 2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for (d) the creation of conditions which would assure to all medical service and medical attention in the event of sickness. As seen, access to healthcare has been recognized as a human right; state parties are required to ensure that individual citizens access medical services and attention when needed. Then, it may be understood that providing these crucial services involves the availability of adequate medical service personnel.

A. Importance of Adequate Healthcare Staff

Perez [6], in "The importance of adequate staffing in healthcare," posits that adequate healthcare staffing has a positive impact on the staff, patients, and the healthcare facility. Understaffing leads to overworking of healthcare providers, leading to burnout, fatigue, depression, etc., which in turn puts the patients under their care at risk. Perez [6] further reports that

40% of the nursing units in the United States are understaffed, and many nurses (as many as 45%) who joined the profession out of passion are reportedly contemplating a switch of careers because of being overworked. Taking the case of nurses as an example, The American Nurses Association conducted a study among nurses regarding how they felt about staffing in their respective institutions. The findings showed that 50% could not spend adequate time with the patients, 96% were fatigued at the beginning of shifts, 43% had to work overtime, 54% were overworked, 77% worked 12-hour shifts regularly, 40% nursing units were understaffed and, 33% nursing units were inadequately staffed [7].

Further, noting the critical role played by healthcare personnel in the attainment of Sustainable Development Goal (SDG) 3,sw which covers health and well-being Pascal et al. [8] GBD 2019 Human Resources for Health Collaborators [9], argue that adequate and motivated healthcare workers are vital in the provision of universal health coverage.

For a health system to work efficiently, there is a need for a well-trained and motivated health workforce. Also, Ahmat et al. [10], citing The Global Strategy on Human Resources for Health (GSHRH), notes that "...health systems can only function well when they have sufficient, well-trained and equitably distributed health workers; who are competent, responsive, motivated and productive".

II. Methods

The article is based on a library data collection approach. In writing the article, the author has analyzed existing publications related to the healthcare workforce to come up with the final findings of the article.

III. Findings and Discussion

“Health systems can only function with health workers; improving health service coverage and realizing the right to the enjoyment of the highest attainable standard of health is dependent on their availability, accessibility, acceptability and quality” [4]. The World Health Organization has underscored the vital role the health workforce plays in the healthcare system. Even with the best hospitals and the best possible equipment and medication, the delivery of healthcare services depends on the healthcare professionals available. That is why the World Health Organization has emphasized that delivering quality healthcare services requires highly qualified health workers who are available and accessible when needed.

A. Current Healthcare Workforce Situation: An overview across some regions

There has been notable effort made toward ensuring that the global health workforce is adequate. However, despite the effort, there are still challenges [10]. Boniol et al. [11], in the article "The Global Health Workforce Stock and Distribution in 2020 and 2030: A Threat to Equity and ’Universal’ Health Coverage?" noted that "The 2016 Global Strategy on Human Resources for Health: Workforce 2030" had estimated that by 2030 there would be a shortfall of 18 million healthcare personnel. However, this has been revised, and as per the World Health Organization [4], there will be an estimated global shortage of 10 million healthcare professionals by 2030. Further, Boniol et al. [11] reported that "In 2020, the global workforce stock was 29.1 million nurses, 12.7 million medical doctors, 3.7 million pharmacists, 2.5 million dentists, 2.2 million midwives, and 14.9 million additional occupations, tallying to 65.1 million health workers." Looking at the numbers, the healthcare workforce shortage crisis is far from over. Healthcare is a vital component in building a productive society. A chronic shortage of health workforce is likely to lead to increased cases of infirmity and mortality.

However, Boniol et al. [11] warn that increasing healthcare workers should not be celebrated blindly. They note that the number of healthcare workers is bound to grow exponentially as more work avenues are created within the healthcare sector. Moreover, the increase in healthcare workers is not evenly distributed, with Africa and the Eastern Mediterranean region lagging. Boniol et al. [11] report that between 2020-2030, the average growth of healthcare workers will be 29%, translating to a total of 84 million healthcare workers, compared to a 9.7% global population growth.

Agyeman-Manu et al. [12] argue that for health services to be availed adequately, there must be a sufficient number of healthcare workers. They further report that the highest number of healthcare workers is in high-income countries, while the lowest is in low-income countries. Despite shouldering the most significant percentage of the global disease burden, Africa has the least number of healthcare workers. Africa has a mere 4% of the global health workforce. Also, compared to the Low-income countries, High-income countries have 6.5 times more doctors.

Ahmat et al. [10], in "The health workforce status in the WHO African Region: Findings of a cross-sectional study" based on the ’United Nations World Population Prospects 2019’ aver that The African continent still faces a significant challenge of meeting the minimum WHO health workforce threshold. The findings were published in a study conducted in 47 countries to assess the continent’s progress toward meeting the "Global Strategy for HWF by 2030". The study established that 3.6 million healthcare professionals were in the 47 countries. Of the 3.6 million healthcare workers, 37% were nurses, 9% were medical doctors, 10% were medical laboratory technicians, 14% were community health workers, and 12% were administrative and support staff. The findings of the study showed that Africa had a dire need for more health workers. Ahmat et al. [10] reported that there is a glaring shortage of all cadres of doctors, nurses, and midwives in all African countries.

According to Sarkar [13], the South East Asian region faces the challenge of inadequate healthcare workers. In many instances, patients go to hospitals and either take long to be attended to or are not attended to at all due to a shortage of healthcare professionals. This challenge is more pronounced in rural and far-flung areas compared to urban areas. Sarkar [13] further notes that unless urgent measures to deal with

the situation are put in place, the problem is bound to worsen because many healthcare workers in ASEAN are reportedly discontented with the work environment and are actively considering switching professions. The main reasons for the discontent include poor remuneration and long working hours.

Still in Asia, Tsang [14] reports that Hong Kong, too, is facing a shortage of healthcare staff. He notes the situation worsened with the Covid-19 pandemic in 2020 when Hong Kong had a challenge of getting enough personnel to run Covid-19 testing centres. The problem worsened with the demand for staff to administer COVID-19 vaccinations in 2021. Hong Kong has had to compete with other countries for healthcare workers to supplement their own. Getting healthcare staff from elsewhere, including mainland China, has not been without its challenges for Hong Kong because the personnel have families back home, meaning they work for a short while and go back home [14].

Cuevas et al. [15], in "Toward the Future of Healthcare Workers: Upcoming Trends and Challenges," report that there is a shortage of healthcare staff in Latin America and the Caribbean. Notably, the region has attained the World Health Organization criterion of 44.5 health workers per 100,000 people. However, the World Health Organization's given average is not the gold standard for an ideal health workforce but the acceptable bare minimum. Also, not all the Latin American and Caribbean countries have attained the health workers threshold (only 15 out of 26 countries have achieved the minimum number). The highest number of Doctors is found in Uruguay, Brazil, Cuba, Paraguay, and Argentina, while the lowest number is in Bolivia, Honduras, Haiti and Jamaica [15].

Moreover, Cuevas et al. [15] have further noted that attaining the World Health Organization-recommended healthcare personnel is essential, but it does not necessarily mean they are adequate. A study in some Latin America and Caribbean countries has shown that most healthcare workers are concentrated in urban areas. Therefore, just like in Southeast Asia, rural communities have more significant difficulties accessing healthcare workers than urban areas. According to Machado et al. (2022), this inequitable distribution of healthcare workers has been significantly fueled by existing social inequalities in the region. For a long time, Latin America and the Caribbean have had social disparities. For example, the inequitable distribution of healthcare staff was evident in Brazil as it battled the Covid-19 pandemic.

Regarding the situation in Europe, Looi [16], in 'The European healthcare workforce crisis: how bad is it?' reported that Europe was facing a possible healthcare workforce shortage crisis. Looi [16] further noted that the World Health Organization regional director for Europe (Hans Kluge), while addressing the 'European Health Forum Gastein' in September 2023, said there were only 2.4 doctors per 1,000 people in some European countries. As of September 2023, specialist doctors were shorted in 16 out of 31 countries studied. In the same sample, 15 countries lacked nurses, health care assistants, and medical practitioners.

B. Healthcare staff shortage in select countries

Vietnam is a Southeast Asian country with more than 100 million people. Since the inception of "Doi Moi" policies by the Communist Party of Vietnam in the 1980s, the country's economy has impressively leap-frogged from one of the poorest countries in the world to a lower-middle economy [17]. In 2021, statistics according to Quan and Taylor-Robinson [17], citing Viet Nam General Statistics Office: Statistical Yearbook of Viet Nam. Nam (2023), the number of doctors in Vietnam increased tremendously between 1986 and 2021. In 2021, Vietnam had an estimated 109,500 doctors, up from a low of 15,000 in 1986. Cambodia also faces the challenge of inadequate healthcare workers. However, the country's workforce has been increasing gradually to the current more than 4,000 physicians, up from 45 physicians four decades ago. The ratio of midwives, nurses, and doctors to people in Cambodia is 1:000, Which places Cambodia as the lowest in the ASEAN region. The government aims at reaching 2.4 health workers per 1,000 people by 2030 [18]. The situation in the Philippines is ironic, particularly regarding the shortage of nurses and doctors. The Philippines ranks among the top countries in exporting medical workforce.

Moreover, according to the McKinsey & Co. report, the Philippines medical workforce shortage is bound to increase in 2024 compared to 2023 [19]. The drivers of this medical workforce shortage are mainly chronic diseases such as diabetes, heart disease, cancer, and kidney disease. It is projected that as the demand for healthcare rises, the quality will drop due to the workforce shortage. If the trend continues, by 2028, the shortage of nurses will reach 90,000. It is estimated that it will take 12 and 23 years to fill the shortfall of nurses and doctors [19], [20].

Further, the shortage of nurses has led to burnout among nurses in the Philippines, leading to career changes, resignations, and even relocation to other countries. These challenges worsen an already dire situation [21]. Lalu [20], in a news article for the Inquirer.Net, reported the proceedings of the Filipino House Committee on Appropriations sitting. During the proceedings, The Department of Health's (DOH) Officer-in-Charge and Undersecretary Maria Rosario Vergeire reported that the Philippines has a shortfall of 114,000 physicians (there was a demand for 189,548 physicians) and 127,000 nurses (the demand was 300,708 nurses. Further, the Philippines produces 4,378 physicians and 10,635 nurses annually. Unfortunately, many healthcare workers leave the Philippines to work abroad [20].

Vietnam faces a challenge of equitable distribution of healthcare staff. In Vietnam, there is a glaring disparity in the number of healthcare professionals in cities and rural areas. Many of the healthcare professionals are found in urban areas. Also, there are more private and public healthcare workers [17]. The Covid-19 pandemic has exacerbated the healthcare staff shortage problem. In the wake of the Covid-19 pandemic, many healthcare workers have resigned or abandoned their jobs. However, this was not an isolated incident in Vietnam but

a global reality. In the wake of COVID-19, many healthcare staff and other frontline workers had to battle with challenges such as long working hours, stigma, occupational hazards, family challenges arising from the strain of long working hours, etc., and as a result, many of them resigned [22], [23]. The long work hours healthcare staff had to work had an impact on their work-life balance, and therefore, some healthcare staff had to resign. It is noteworthy that, according to Le and Trang [24], women make up 57.52% of the healthcare workforce in Vietnam. This high number shows the vital role played by female healthcare staff in Vietnam. However, Le and Trang [24] have also pointed out that Vietnamese society expects women to be the primary caregivers in their families. This is often a problem if they are in a role that does not provide work-life balance. Therefore, it can be deduced that when women healthcare givers had to work long hours at the expense of their families, it was bound to cause family conflicts, hence the resignations on this ground. Vietnam is currently battling a health workforce shortage in the public sector that has been worsened by resignations that were occasioned by the strain arising from battling the COVID-19 pandemic. Vietnam's Ministry of Health attributed the staggering resignations to too much pressure at work, poor pay, poorly equipped hospitals, etc.

Official data shows that " 9680 health personnel (comprising 3094 physicians, 2874 nurses, 551 medical technicians, 276 midwives, 593 pharmacists, and 2280 other staff) resigned or abandoned their positions" [23]. Kobashi et al. [25] note that, like many other countries, Cambodia has a challenge in the inequitable distribution of healthcare workers. In this aspect, Cambodia faces the same problem as Vietnam, where most healthcare workers prefer working in urban rather than rural areas. Kobashi et al. [25] reported that approximately 40% of physicians and 74% of specialists were based in Phnom Penh. Consequently, there is an acute shortage of healthcare professionals in rural areas, yet 80% of Cambodians reside in rural areas. One of the notable effects of this trend is that infant mortality among Cambodia's rural population is three times higher than in urban areas. Although the Philippines remains one of the leading suppliers of health workforce abroad (mainly Europe and the USA), many parts of the country have a shortfall of health workers. Many skilled healthcare staff either relocate abroad or to urban areas, leaving the rural areas and conflict zones underserved. Filipino cities and municipalities that have attained the World Health Organization threshold of minimum health workers are less than 25%.

As a consequence of this situation, there is a significant deficit of healthcare staff leading to poor service quality and increased errors during service delivery. Most healthcare workers are concentrated in the National Capital Region [26]. Le [22] reported that the official data of the government of Vietnam showed a shortfall of 23,866 medical staff in the preventive healthcare sector. The data showed that with COVID-19 instigated resignations, among other challenges, the preventive healthcare sector required 8,000 more doctors and 4,000 public health professionals, among others. Le [22] further reported that government statistics showed that each Centre for Disease Control in Vietnam was understaffed and lacked adequate specialists. The impact of Covid-19 on the public health sector cannot be overemphasized. For example, in Ho Chi Minh City alone, commune and ward-level public hospitals lost 958 staff through resignations from January to October 2021 compared to 597 within the same period in 2020.

C. Reasons for the health-workforce shortage.

Cambodia's health sector has been struggling to recover from the devastating effects of the Khmer Rouge genocide. The genocide led to the death of 2 million people and almost all Cambodian doctors [27], [28]. Lim et al. [27] further add that following the devastating aftermath of the Khmer Rouge regime, the Cambodian health sector has had to battle with poorly trained doctors, a shortage of doctors, and doctors whose training does not match the needs of Cambodians. One of the challenges that has led to a shortage of medical workforce is the cost of training. Training of health workers is a costly affair globally.

An example is the case of Cambodia, where medical courses are out of reach for the impoverished population in rural areas. In Cambodia, Universities and private medical universities are located in urban centres, and people with low incomes in rural regions cannot afford the fees [25]. The prohibitive cost of training as a doctor has also been noted as one of the problems leading to doctor shortages in the Philippines. A study conducted in 2019 by the UP Center for Integrative and Development Studies established that in the previous five years, the Philippines had only graduated 3,000 doctors annually. Then, 80% would subsequently pass the medical board examination. The cost of training ranged from P44,000 in government-subsidized universities to P300,000 in private universities (767 USD and 17,715 USD in the current exchange rate, respectively) annually. Training a doctor costs about P2 million (118,111 USD) [29]. The cost of training seems to cut all the countries globally. Vietnam is no exception, as training medical workers is expensive. According to Vijay [30], in many cases, only the rich can afford the fees for medical courses because of the cost of paying for the equipment and facilities used for training. Vietnam supports the same argument about medical school being expensive.

The Philippines is dealing with a brain drain problem that has led to a shortage of nurses. Over the years, the Philippines had not been experiencing a shortage of nurses. The country had been training excess nurses and comfortably supplying them to other countries. It is the world's leading exporter of nurses [27]. The nurses would work abroad and remit foreign exchange back home. However, after the COVID-19 pandemic, the Philippines is battling a severe shortage of nurses because an estimated 40% of nurses retired or left the country for better-paying jobs. Vietnam's health workforce numbers have also been affected by the Covid-19 pandemic. It has been reported that many healthcare personnel have resigned

from service because of the occupational hazards associated with battling COVID-19 and burnout arising from working for many hours under pressure. These resignations have strained a health workforce that was already understaffed. This reality has made the Health Ministry develop a blueprint for ensuring the country adequately trained healthcare workers [13], [23], [31].

In a 2023 interview, the Officer-in-Charge of the Department of Health (Dr Maria Rosarion Vergeire) said that the Philippines had a shortage of 350,000 nurses. She attributed this problem to brain drain as many nurses left the Philippines for better-paying jobs abroad [32] as one of the initiatives to solve this problem. Chanco [29] reports that the Philippines adopted the Doktor para sa Bayan Law or Republic Act No. 11509, which empowered all 17 government universities and colleges to offer medical education. The law has provided medical students with free tuition, books, and a stipend. Although the law has been lauded as a step in the right direction, competent trainers are still questioned. Does the Philippines have adequate trainers to teach in all the colleges and universities? Another argument for reducing doctor shortages in rural areas is that the medical curriculum should shift to primary healthcare from the current one focusing on specializations. This would be of benefit in reducing the training period and providing the much-needed staff for rural hospitals because many specialists prefer working in urban centres to working in rural areas. It is a glaring reality that healthcare workers, e.g., nurses in Vietnam, work in under-staffed departments or hospitals for long hours, but the remuneration is poor. Reports have indicated that the COVID-19 pandemic has worsened nurses' already strained working environment. Government statistics showed that within the first six months of 2022, there were 9,680 resignations of healthcare workers, 2,874 of whom were nurses. One of the main reasons for this resignation was poor salaries. A case is reported of a nurse who resigned because she felt that the VND8 million (USD321) was inadequate to take care of her family's needs and unfair pay for her strenuous work. Ho Chi Minh City has also been hit by nurse resignations (391 nurses in the first six months of 2022), leaving the city with a shortage of nurses. Further, the Viet Nam Nursing Association data shows the ratio of nurses to the population is 1:10,000; Nurses and midwives to doctors 1.95:1, yet the global average is 4:1.However, Vietnam has set a target of dealing with this shorfall. The country targets a ratio of 25:10,000 nurses per population and 3.5:1 nurses and midwives per doctor [31].

D. Suggested solutions to the health workforce shortage in Vietnam

This article has established that the shortage of a healthy workforce is a global problem. Vietnam can adopt the suggested ways to increase its health workforce. Currently, Vietnam is facing a significant health workforce shortage because of what experts associate with its fast-growing economy (Vietnam has risen from one of the world's poorest economies in 1986 to a lower middle-income economy), leading to increased life expectancy, a high number of an ageing population and thus a demand for healthcare.

Vietnam should develop initiatives that ensure the well-being of healthcare staff (both physical and mental) and maintain work-life balance. It was noted that during the COVID-19 pandemic, many healthcare workers were fatigued by the long shifts and had to resign because the worker strained their families. This is primarily so among female healthcare workers, who form 57.52% of the entire healthcare workforce. Vietnamese society traditionally expects women to take care of their families, and sometimes, their healthcare jobs take them away from their families for a long. As a result, female healthcare workers sometimes have to resign their jobs for the sake of their families. Therefore, to solve this problem, Vietnam should develop a way of ensuring work-life balance for female employees. For example, Le and Trang [24] suggested that flexible workers and providing childcare services for female employees could help them attain work-life balance.

Vietnam can increase its number of medical workers by heavily subsidizing or even increasing full scholarship opportunities for healthcare-related courses. As it is, the article has established that the current situation favours students from well-to-do families because of the high tuition fees in medical school. Subsidies and full scholarships will open doors for more students, especially from poor rural families, to access healthcare-related education, increasing the numbers. This would also probably help solve the problem of the healthcare worker shortage in rural areas because healthcare workers from rural areas, unlike urban-raised colleagues, would not have many challenges adjusting to the rural lifestyle when they are posted to work in rural areas.

It has also been noted that Vietnam is battling the effect of COVID-19-related resignations, which have increased the existing healthcare workforce shortage. The article established that even before the COVID-19 pandemic, healthcare workers had to bear extremely long shifts under a lot of pressure. Many health workers felt that the demanding shifts were draining, but they kept working to avoid failing their colleagues. With the COVID-19 outbreak, work became more challenging, and health hazards increased, leading to an unprecedented resignation of health workers. Vietnam can address this problem by training a lot of healthcare staff. Increased healthcare staff means that individual employees are not forced to work strenuous shifts that take a toll on their health and ensure work-life balance. Regarding work-related health hazards like the ones that came with the COVID-19 pandemic, Vietnam can ensure that healthcare workers have all the requisite protective gear and that the work environment is safe. Further, because of the elevated risk posed by highly infectious outbreaks such as COVID-19, the government should develop a special lucrative risk allowance for health workers involved in dealing with an outbreak.

The issue of salaries for healthcare workers in Vietnam (especially in the public service) is a matter of concern. Healthcare workers in the public sector are poorly paid compared

to the private sector. It was discovered that many healthcare workers resign, citing poor pay that is not compared to the long hours they have to work. Also, some healthcare staff were quoted as saying that the salary they receive from the government is inadequate to cater to their family needs. In other cases, doctors sponsored by the government for their studies opted to refund the government's tuition and take up well-paying private-sector jobs. In private hospitals, doctors make up to two to three times the salary they are paid in public service. To deal with the problem of resignations resulting from poor wages, the government should review the salaries they pay healthcare workers to make working in the sector attractive. The compensation paid to healthcare workers should take into account the long hours they work, the many years it takes to train them, and even the work environment-related hazards.

IV. Conclusion

This research article has established that the healthcare workforce shortage is a global problem. However, developing countries have a greater problem than developed countries. For example, it has been noted that high-income countries have 6.5 more doctors than developing countries.

Globally, healthcare workers face the challenge of working long, strenuous shifts that affect their well-being and work-life balance. The reason they work such shifts is the shortage of a healthy workforce. There are cases where healthcare staff resign because of the demanding nature of their work.

It has also been noted some countries face a very big challenge of brain drain. There are cases where healthcare workers opt to leave their home countries because they would get well-paying jobs abroad. This migration of qualified personnel creates a health workforce crisis.

Moreover, it has been noted that primarily the rural and poor populations suffer the brunt of healthcare staff shortage. Many healthcare workers prefer working in urban centres at the expense of rural populations. As a result, there is an inequitable distribution of healthcare workers in many countries, with a large number being concentrated in urban centres.

The Covid-19 pandemic caught all countries (even the ones with the best healthcare systems) backfooted. It exposed the underbelly of global healthcare systems. Countries that had a high percentage of an aging population were severely hit. The pandemic exposed healthcare workers to unprecedented workplace hazards, making them work long, strenuous shifts. Many left the health workforce in the long run due to burnout and the elevated risk of contracting Covid-19.

Many countries will likely fall short of attaining Sustainable Development Goal (SDG) 3 by 2030 because of inadequate health workforce. It is virtually impossible to provide universal healthcare without a staff shortage.

Finally, it is imperative that all countries globally take deliberate steps toward training and retaining sufficient healthcare workers.

References

[1] University of Minnesota. (2023, September 10). 10 Must-Have Characteristics for Health Care Professionals. https://ccaps.umn.edu/story/10-must-have-characteristics-health-care-professionals
[2] Joseph, B., & Joseph, M. (2016). The health of the healthcare workers. *Indian Journal of Occupational and Environmental Medicine, 20*(2), 71–72.
[3] World Health Organization. (2022, November 7). Occupational health: health workers. https://www.who.int/news-room/fact-sheets/detail/occupational-health--health-workers
[4] World Health Organization. (nd). Health workforce. https://www.who.int/health-topics/health-workforce#tab=tab_1
[5] UN General Assembly. (1966, December 16). International Covenant on Economic, Social and Cultural Rights, United Nations, Treaty Series, vol. 993, p. 3. https://www.refworld.org/legal/agreements/unga/1966/en/33423
[6] Perez, C. (2023, May 26).The importance of adequate staffing in healthcare. Marquee Staffing. https://www.marqueestaffing.com/2023/05/26/the-importance-of-adequate-staffing-in-healthcare/
[7] Cohen, P.(2022, July 13). Expanding a Nursing Staff: The Benefits. PRN. https://prnfunding.com/benefits-expanding-nursing-staff/
[8] Zurn, P., Zapata, T., & Okoroafor, S. C. (2021). The importance of strengthening the health workforce in Nigeria to improve health outcomes. *Journal of Public Health, 43*(Supplement_1), i1-i3.
[9] GBD 2019 Human Resources for Health Collaborators. (2022, May 23). Measuring the availability of human resources for health and its relationship to universal health coverage for 204 countries and territories from 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet, 399*(10341), 2129-2154.
[10] Ahmat, A., Okoroafor, S.C., kazanga, I., Asamani, J.A., Millogo, J.J.S., Illou, M.M.A., Mwinga, K., Nyoni, J. (2022). The health workforce status in the WHO African Region: findings of a cross-sectional study. *BMJ Global Health, 7*(1), e008317.
[11] Boniol, M., Kunjumen, T., Nair, T. S., Siyam, A., Campbell, J., & Diallo, K. (2022). The global health workforce stock and distribution in 2020 and 2030: a threat to equity and 'universal' health coverage?. *Bmj Global Health, 7*(6), e009316.
[12] Agyeman-Manu, K., Ghebreyesus, T. A., Maait, M., Rafila, A., Tom, L., Lima, N. T., & Wangmo, D. (2023). Prioritising the health and care workforce shortage: protect, invest, together. The Lancet. *Global Health, 11*(8), e1162–e1164.
[13] Sarkar,S. (2023). Past the point of sanity—South East Asia faces critical shortage of healthcare workers. *BMJ, 382,* p.1655.
[14] Tsang, S. (2023). Getting China Right. Survival, 65(4), 43-54.
[15] Cuevas, R.P., Savedoff, W., Nigenda, G., Doubova, S., Sorio, R.E., & Poz, M.D. (2023).Toward the Future of healthcare Workers: Upcoming trends and Challenges. Inter-American Development Bank.
[16] Looi, M. K. (2024). The European healthcare workforce crisis: how bad is it?. Bmj, 384.
[17] Quan, N. K., & Taylor-Robinson, A. W. (2023). Vietnam's Evolving Healthcare System: Notable Successes and Significant Challenges. *Cureus, 15*(6), e40414.
[18] Peng, V. (2023, January). Strengthening Medical Education of Cambodia's Doctors and Laboratory Technicians. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. https://www.giz.de/en/downloads/giz2023-en-factsheet-preservice-education.pdf
[19] Simeon, L.M. (2024, March 15).Worker Shortage, rising costs to slow healthcare growth. The Philippine Star. https://www.philstar.com/business/2024/03/15/2340596/worker-shortage-rising-costs-slow-healthcare-growth
[20] Lalu G. P. (2023). DOH: It will take 12 years for PH to solve shortage of nurses, 23 years for doctors. The Inquirer. https://newsinfo.inquirer.net/1764748/doh-it-will-take-12-years-for-ph-to-solve-shortage-of-nurses-23-years-for-doctors#ixzz85LcI9cU2
[21] Alibudbud, R. (2023). Addressing the Burnout and Shortage of Nurses in the Philippines. *Sage Open Nursing, 9,* 23779608231195737.
[22] Le, C. (2022, January 20). Vietnam lacks 24,000 preventive healthcare workers. VN Express International. https://e.vnexpress.net/news/news/vietnam-lacks-24-000-preventive-healthcare-workers-4418815.html
[23] Thanh, N. D., Anh, P. Q., Huyen Chang, P. T., Dung, H. V., Xiem, C. H., & Chau, L. B. (2023). Health staff's job motivation post COVID-19 pandemic: A case study in Vietnam. *SAGE Open Medicine, 11,* 20503121231207699.
[24] Le, T.T. & Trang, N.T. (2023). Empowering women in modern Vietnamese Society. *Tec Empresarial, 18*(2), p.1132-1149.

[25] Kobashi, Y., Chou, K., Slaiman, N., Neun, P., Hayashi, Y., Tsubokura, M., & Okawada, M. (2021). Improving the Rural-Urban Balance in Cambodia's Health Services. *International Journal of Health Policy and Management, 10*(6), 358–359.

[26] Robredo, J. P., Ong, B., Eala, M. A., & Naguit, R. J. (2022). Outmigration and unequal distribution of Filipino physicians and nurses: An urgent call for investment in health human resource and systemic reform. The Lancet Regional Health. *Western Pacific, 25*, 100512.

[27] Limpin, D.T.N. & Artiaga, J.P.M. (2023, August 2).Where have the nurses gone? The shortage of nursing professionals in the Philippines. Lee Kuan Yew School of Public Policy at the National University of Singapore. https://lkyspp.nus.edu.sg/gia/article/where-have-the-nurses-gone-the-shortage-of-nursing-professionals-in-the-philippines

[28] SWPictures. (2009). Cambodia O.R. https://www.swpictures.co.uk/catalogue/cambodia-o-r/ 08/05/2024

[29] Chanco, B.(2023, November 15). A doctor shortage: Demand and Supply. The Philippine Star. https://www.philstar.com/business/2023/11/15/2311448/doctor-shortage

[30] Vijay. (2023, March 30). Future Outlook of Vietnam Medical Education Market.Ken Research. https://www.kenresearch.com/blog/2023/03/future-outlook-of-vietnam-medical-education-market-ken-research/

[31] Vietnamnet. (2022, January 22). Vietnam faces shortfall of nearly 24,000 preventive medicine workers. https://vietnamnet.vn/en/vietnam-faces-shortfall-of-nearly-24000-preventive-medicine-workers-810654.html

[32] Pauls, K. (2023, March 3).'Stop the bleeding,' Philippines health official says about international recruiting of nurses: Less developed countries concerned rich nations exploiting fragile health systems.CBC. https://www.cbc.ca/news/canada/manitoba/philippines-health-international-nurses-1.6764854

•••