

HEALTH HUMAN RESOURCES DEVELOPMENT IN VIETNAM

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ABSTRACT : *This paper addressed issues relating to health, health care, human resources in the health sector, the need to develop a health workforce, as well as limitations and achievements in health human resources development in Vietnam. In addition, the study also highlighted some works and reports of health, human resources for health, contents of health human resources development; and the present situation of the country and developed Asian nations, from which to draw some recommendations for the advancement of Vietnamese health human resources afterward.*

KEYWORDS: health human resources, health human resources development, health in Vietnam

INTRODUCTION

Despite the fact that Vietnam's socioeconomic position has not yet reached the level of many other nations in the area, its indicators of healthcare and human development have been outperforming those countries with better economic conditions, social standing, and investment. Vietnam's human development index (HDI) has been steadily rising, according to the United Nations Development Program (UNDP). It is widely known that the HDI is made up of three essential components: income (GNI/person), state of being knowledgeable (the education index), and life expectancy. These three indicators have the same influence on the HDI, thus they must all improve to raise the HDI. Notably, although these three characteristics are not fully independent of one another, they do interact with each other. For instance, when the quality of healthcare is improved, somehow the average life expectancy grows consequently. According to UNDP's 2017 statistics, with a score of 0.694, Vietnam now ranks at 116th out of 189 nations examined on the HDI index. For instance, when the quality of healthcare is improved, somehow the average life expectancy grows consequently. According to UNDP's 2017 statistics, with a score of 0.694, Vietnam now ranks at 116th out of 189 nations examined on the HDI index. This means that Vietnam is now in the upper-middle group and simply needs to gain 0.006 points more to be listed in the group of countries with advanced human development. Moreover, as seen by the HDI values throughout time, Vietnam is recognized to perform relatively well in the healthcare and education fields. Concretely, Vietnam's life expectancy is 76.5 years, ranking second in Asia and the Pacific, after South Korea. Vietnam's average schooling years is 8.2 –

also greater than the average ones of East Asia and the Pacific. This is one of the proudest achievements which involves the contribution of the health sector.

"Health is perceived as the precious property of every person, family, and society," stated by the Fourth Resolution of the 6th Party Central Committee, "Healthcare is our responsibility, of each citizen, of the community, of all levels of party committees and authorities, as well as social organizations, especially in which the healthcare and medical sector plays the core role". Therefore, the Vietnamese government has drafted various strategies for protecting, caring for, and improving people's health for the years 2011-2020, with a vision to 2030. Aside from that, some of such contents have been proposed as part of the overall goal, "Ensure that all people have abilities to access and make use of high-quality healthcare and medical services". By way of explanation, everyone is entitled to live in a safe community to be well-developed physically and mentally with reduced morbidity, greater fitness and stamina, longer life expectancy, and better population quality. Following that, we may work toward particular objectives, such as promoting the growth of health human resources in both quantity and quality terms, supplementing highly skilled medical personnel to fulfill the needs of the health sector, particularly in rural, mountainous and remote areas as well as several specialties (subclinical, infection prevention and control, pediatrics, communications and health consultation, etc.); ensuring a balance between training and hiring medical staff and professionals, cited from the 2011 General Annual Health Sector Overview Report.

THEORETICAL BASIS AND DEVELOPMENT OF HEALTH HUMAN RESOURCES

The concept of human resources

The term "human resources" (HR) was first coined in the 80s of the twentieth century when there was a fundamental change in the method of managing and using people in the labor economy. There were many definitions and different explanations of the term, but the arguments of Wright, McMahan, and McWilliams (1994) stood out. They argued that human resources are perceived as the human capital under the management of a firm or organization in a direct employment relationship. In other words, human resources involve organizational activities aimed at managing human capital and ensuring that it is effectively utilized in order to achieve the organization's overall objectives. Based on that theory, this leads to two important aspects of human resources.

First, in agreement with Flamholtz and Lacey (1981) and McKelvey (1983), Wright and his collaborator concentrated on the knowledge, skills, and competencies of the people who set up businesses. They assumed that when discussing human resources, job skills are the first characteristic addressed. This approach highlighted the value of humans inside the company, treating them as a more valuable resource than the company's policies or processes. Second, Wright and his collaborator have gone a step further when realizing that apart from skills, behaviors are also another important factor of human resources. In their model of the human

resource system, the authors believed that there is a close correlation between behavior and competence, which impacts each individual's performance for organizational strategies.

Not only that, in their research, Wright and his collaborator have distinguished between a company's human resources (available human capital) and HR management practices (personnel tools employed to manage available human capital). Through the concepts of value, rarity, irreplaceability and substitutability, the authors argued that HR management practices cannot provide a sustained competitive advantage since every single HR action may be easily imitated by competitors. Instead, they claimed that human capital with highly motivated and skilled employees is more likely to generate a sustainable source of competitive advantage. In other words, the scholars stated that sustainable sources of competitive advantage are formed by human capital possessing both high skills and willingness (or motivation) to exhibit productive behaviors. It is needless to say that the distinction between competencies (skills) and behaviors appeared as a fairly consistent theme in the works of Wright and his collaborator.

In contrast, Lado and Wilson (1994) claimed that HR management practices can generate a source of sustainable competitive advantage. Based on their knowledge of the functions of HR management activities in the company's capability, they believed that HR management systems may be unique and independent in different organizations, thus making them difficult to imitate. Conclusively, whereas Wright et al. (1994) argued for the inimitableness of individual practices, Lado and Wilson proposed a system of HR management practices with all supplements and the interconnection among individuals can make it impossible to be imitated.

Despite the differences in the aforementioned authors' study, the writer notices a strong complementarity between the roles of human resources and HR development management. The objective of this essay is not to determine whether human resources or HR management (particularly in the health sector) is more significant; rather, both are important and equally deserving of attention and interaction. Even though high-quality human resources are commonly perceived as the initial requirement for an organization's sustainable development, it cannot be denied for long-term growth, the efficient HR management and development tools are required to bring all members and individuals together as a united body and commit themselves to the organization's set goals.

The concept of health human resources and health human resource development

"Health human resources include all people involved in activities whose primary objective is to improve health", according to the World Health Organization (WHO) (2016). In Vietnam, health human resources infer medical staff and cadres on payroll and on contracts working in the health system, medical training, research institutions as well as in the administration and supply chains of healthcare services.

Undoubtedly, health human resources are critical to the advancement of the healthcare and medical systems, as well as socio-economic development. Aside from capital, pharmaceuticals,

equipment and technology, health and medical workers are the core resource in any health system since they are the ones who are capable of preventing diseases, conducting treatment and cures, also discovering and inventing new medicines and vaccines. Furthermore, health human resources may be involved in the health sector's planning, development, implementation, management, retention, information, and research. Thus, it is plausible to assert that each decision made by health care employees such as ordering tests, prescribing medications, or describing the list of equipment at various levels, etc. will have a significant impact on the overall performance of the health system(Chen & collaborators, 2004, [6]; Girma & collaborators, 2007, [8]).

Thanks to the implementation of the socialist-oriented market economy, Vietnam has consistently witnessed fast socio-economic development, attracting foreign investment. Vietnam has achieved middle-income status and has set the goal of being an industrialized nation by 2020. However, economists and businessmen have lately tended to underestimate wellness as a factor related to productivity and determining economic growth. According to the summary of the health sector assessment from 2012 to 2015, Vietnam is now struggling with three major illnesses: infectious diseases, non-communicable diseases and injuries. These challenges require tremendous reform of the health sector as health is a significant aspect of human capital that has a direct impact on productivity and economic efficiency. Hence, investing in and developing a health system with qualified medical humans may ensure the health of Vietnam's total labor force, which is a prerequisite for other important social aspects growth (intelligence, skills, adaptability, etc.), enabling Vietnam to prosper and become a country with favorable economic conditions.

Because of the critical role of health resources to each country, improving health human resources enables its citizens to have easier access to quality health care at affordable prices and through a sustainable distribution system (Rao, 2000, [13]). It is the set of forms, methods, and policies aimed at improving intelligence, stamina and behaviors in order to make positive changes in human resource quantity, quality, and structure (Vu, 2015, [17]).

Health human resource development

In terms of quantity

The assessments for the quantity of health human resources are typically calculated with general criteria: the total number of officials and employees working in the health sector; the total number of doctors, tertiary pharmacists, nurses, technicians, and other specialized staff serving the medical profession; the ratio of doctors per 10,000 people, and the ratio of nurses per 10,000 people.

The World Health Organization (WHO) (2016 [20]) forecasted the world would continue to experience healthcare labor shortage, especially in Southeast Asia and South Africa. More than 14 million health workers are expected to be required by 2030 to address global health care

demands. Therefore, the increase in numbers of healthcare and medical humans worldwide and in Vietnam is tremendously necessary.

The Ministry of Health (2009) [3] notice that Vietnam is witnessing a serious shortage of health personnel in underprivileged and remote areas. Despite progressive changes in the distribution of health professionals by region, there are still various inadequacies leading to the imbalance in the number of healthcare staff between treatment and reservation, central and local, urban and rural areas as well as among specializations. For that reason, with an attempt of addressing the impending shortage of healthcare human resources, our country is striving to implement effective measures to educate, train, employ, and allocate health resources among regions, thereby reducing the disparity of healthcare and medical human resources among regions, especially in remote and underprivileged rural ones.

In terms of quality

Along with the growth in numbers, it is also important to improve the professional qualifications of medical and healthcare staff. A standard human resource is widely believed as a decisive factor in delivering quality health services to citizens. The quality of health human resources is a composite of employees' various factors including intelligence, awareness, acquaintance, ethics, skills, physical fitness, aesthetics, etc. These parts are firmly connected and have a collaboration with one another. Among the above factors, intelligence is the most significant one and physical fitness is also vital for people to work in this field.

Intelligence is assessed based on professional qualifications (Intermediate Arts, Bachelor, Master, Doctorate, Professor), soft skills (communication skills, adaptability, teamwork, etc.), computer skills and language competencies. On the other hand, physical fitness is assessed based on the present health status and fitness, the ability to perform work and daily activities, and illnesses if any as well as their progress or risks. The Ministry of Health of Vietnam has classified the health status into 5 categories based on body mass index (BMI), as follows: BMI 18-22 (type A, very healthy), BMI 15-17/23-29 (type B1, healthy), BMI 12-14/ 30-35 (type B2, moderate), BMI 10-11 / > 35 (type C, weak), and lastly type D (very weak).

Greater efficiency in employing health human resources

Along with the expansion of health human resources, the efficient use and management of health human resources is equally deserving of much attention, especially in the state of the global health workforce shortage. According to a World Health Organization (WHO) report (2016, [19]), roughly 20-40% of global healthcare expenditure is squandered, owing to the lack of adequate management and effective supervision of the healthcare workforce. Fortunately, Vietnam recognized that matter early on. In the general report on the health sector in 2009, the Ministry of Health [2] emphasized that the utilization of health workers in our country had to be concentrated and improved tremendously. In particular, the improvement was reflected in four basic aspects: (1) the strategic planning process within HR management from central to local ; (2) standardization of supervising and managing human resources; (3) proper appraisal of

employees' performance as a basis for reward or punishment; and (4) a complete, unified, and reliable information system on health workers, especially those in the private health sector because this sector was increasingly developing and expected to play an important role in the national health system.

RESEARCH METHODOLOGY

The article was written by qualitative approaches and synthesizing information from reports and published scientific publications with reliable data. To obtain trustworthy evidence for research, the author employed a lot of information from reputable sources involving the Ministry of Health (Vietnam), the World Health Organization (WHO), and a wide range of articles published in prestigious journals in the world. The author believes that with this methodology, his article will have a broad overview of the development of health human resources around the world and in Vietnam, allowing him to make reliable comparisons, assessments, and recommendations for the future development of human resources for the health sector in his country.

RESEARCH RESULTS AND DISCUSSIONS

The reality of health human resource development in Vietnam

Workforce size

The density of some types of health personnel per 1,000 inhabitants in Vietnam has consistently increased over the years, particularly the number of nurses; nevertheless, this rise has not been considerable (Table 1), and the ratio of physicians (per 1,000 people) in Vietnam is still **far from reaching the WHO standard**.

Table 1: Ratio of health workforce per population in Vietnam from 2009 to 2013

Ratio of health personnel	2009	2010	2011	2012	2013
Population/ 1 doctor	1.518	1.390	1.387	1.363	1.315
Total doctors/ 1,000 inhabitants	0,66	0,72	0,73	0,73	0,76
Total nurses and doctors/ 1,000 inhabitants	1,25	1,34	1,34	1,35	1,38
Total nursing staff/ 1,000 inhabitants	0,88	0,94	0,99	1,04	1,07
Total tertiary pharmacists / 1,000 inhabitants	0,18	0,18	0,19	0,20	0,21

Source: Ministry of Health (Vietnam), 2013a [3]

Despite increased investment and mentoring programs to raise the number of students studying healthcare and medical fields, Vietnam is expected to suffer from a serious shortage of healthcare labor, particularly nurses and nursing staff. The evidence is that the nurse-to-doctor ratio is only 0.82/1 and the ratio of nursing staff to doctors is 1.4/1. **Although there is no international standard for the nurse-to-doctor ratio**, the low ratio might cause several

difficulties for healthcare and medical systems since nurses are able to perform several doctors' professional tasks without affecting the quality. Furthermore, it is more expensive and time-consuming to train a doctor than to train a nurse, and it is also more difficult to allocate doctors to work in rural areas. Therefore, training a large number of physicians in a developing nation like Vietnam is not only difficult and costly, but it also contributes to greater disparities in the distribution of doctors and nurses to rural and urban areas. Below are tables 2 and 3 presenting the forecast of Vietnam's demand for health workers by 2020. The tables illustrate that Vietnam has required a large quantity of personnel in medical examination and treatment, especially nurses and nursing staff.

Table 2: Forecast of Vietnam's demand for health workers with high professionals by 2020

Types of professionals (person)	Year (*)	Demand for 2020 (**)	Target for 2020 (***)	Supplement
Doctor	44.104	99.351	8	55.245
Nursing staff	141.494	225.345	20	83.851
Tertiary pharmacist	16.875	27.762	2	10.887
Medical technician	24.076	89.337	8	65.261
Others	36.114	134.006	12	97.892

Source: Department of Medical Examination and Treatment - Ministry of Health [3]

(*): Hospital inspection data in 2011 - Medical Examination and Treatment Administration - Ministry of Health.

(**): Based on the forecast of Vietnam's population in 2020 at 97.5 million people, the health workforce is reduced every year by 5% due to retirement, job transfer.

(***): Number of officials per 10,000 inhabitants

Table 3: Forecast of Vietnam's demand for health workers by socio-economic regions to 2020

Economic regions	Doctors		Nursing staff			Tertiary pharmacists				
	2011 (*)		Demand for 2020 (**)	Supplement	2011	Demand for 2020 (**)	Supplement	2011	Demand for 2020 (**)	Supplement
Total	Doctors/10.000 inhabitants									
The Red River Delta	10,696	5,3	22,947	12,251	20,387	45,392	25,005	378	4,589	4,211
Northern Midlands and Mountains	6,722	6,0	13,297	6,575	35,465	37,604	2,139	719	2,843	2,124
North Central and North Central Coast	8,982	4,7	21,252	12,27	30,712	48,878	18,166	510	4,445	3,935
Highlands	1,894	3,6	5,595	3,701	8,266	13,429	5,163	117	1,221	1,104
South East	8,724	5,9	17,466	8,742	20,31	36,363	16,053	516	3,534	3,018
The Mekong Delta	7,084	4,1	18,794	11,708	26,354	43,679	17,325	620	4,123	3,503
Total	44,104		99,351	55,247	141,494	225,345	83,851	16,875	27,762	10,887

Source: Department of Medical Examination and Treatment - Ministry of Health [3]

Distribution of health workers

In Vietnam, healthcare human resources seem not to be evenly distributed across the country. While the Red River Delta has the largest density of health staff, the Mekong Delta and Central Highlands have the lowest (Table 3). According to the 2012 Economic Facility Census, the country has 112 hospitals at the central and ministerial levels, accounting for more than 10% of the total number of hospitals nationwide, with nearly half of them in Hanoi; the administrative and non-business sector has 358 hospitals (accounting for 34% of the total), with an average of about 6 hospitals per province. The number of hospitals, on the other hand, is unevenly spread throughout areas, with the majority of them concentrated in large and densely populated cities.

In recent years, the disparity of medical and healthcare quality among regions has narrowed, which indicates that the Vietnamese government has paid attention and implemented many policies to encourage more health staff to work in rural and remote areas. However, physical

facilities and health personnel are still not properly distributed when the majority tend to gather at central or provincial hospitals rather than district or rural ones. Meanwhile, people's desire for medical examinations and treatment with high-quality services and procedures is growing, causing the overloading at central hospitals and big cities.

Education and training of health personnel

The number of health professionals in Vietnam is one of the main issues that our country's medical training institutes are now experiencing, according to WHO's "National overview of the health workforce in Vietnam" report (2016, [20]). Student enrolment is increasing and becoming overloaded, yet training prices are substantially cheaper than in Southeast Asian countries. Tuition fees are typically low when compared to the demand for the desired level of training, resulting in minimal facility investment expenditures, and even many training institutes lack hospital practices for students. According to Pham Ngoc Thach, President of the Medical University, the school fees for students from other provinces is 28.6 million VND per year, whereas for the students who are Ho Chi Minh City residents is 14.3 million VND, which makes it difficult for the school to cover all the costs of educational activities and high-end facilities. Despite the school's efforts to collaborate with 62 hospitals and medical centers in the city to provide learners with sufficient practice opportunities, the unfortunate reality is that the money the school pays for the hospitals is not even enough for students to wash their hands with antibacterial soap.

It is undeniable that the increased quantity of medical and pharmaceutical students seems justified in the context of Vietnam's serious shortage of health workers. However, the reality illustrates that more quantity does not automatically imply greater quality. It is because medical school capacity and quality assurance continue to be the primary determinants of medical staff training. Meanwhile, the fact shows that the training program has not been implemented effectively due to limitations in strict guidance, monitoring, supervision and evaluation; as well as a lack of integration with the world in terms of approach, methods, and training material.

Notably, the training process in Vietnam is still rather theoretical, particularly the teaching method, academically intensive but lacking in facilities or hospitals for students to practice, regardless of the fact that the professions require a high level of practical competence. More notably, there are not enough capable lecturers to handle the rising number of students. còn thiếu. In addition to public schools, private training institutions have been grown rapidly in recent years to meet the demand; however, Vietnam does not have a clear accrediting system as well as a quality assurance mechanism for those new private schools (WHO, 2016, [20]).

Table 4 shows the number of specialized training institutions by type of ownership. In comparison to the number of graduates in each major in Table 5, the quantity of the training institutes is fairly small. It demonstrates that Vietnam's capacity to train health personnel is not sufficient to satisfy societal demands, and it is also a factor affecting students' professional quality after graduation.

Table 4: Number of specialized training institutions by type of ownership

Specialty	Quantity by type of ownership*		Total
	Public	Private	
General Medicine	15	2	17
Dentomaxillofacial	7	0	7
Traditional Medicine	1	0	1
Nursing	15	8	23
Pharmaceutical	10	7	17
Medical Engineering	9	1	10
Public Health	7	1	8

Source: The Ministry of Education and Training, 2014

* Note: A training institution can train many specialties

Table 5: Number of university graduates of Medicine and Pharmacy in recent years

Qualifications, Specializations	2006	2007	2008	2009	2010	2011	2012	2013
Fulltime	2.335	2.490	2.685	2.900	3.530	4.330	5.365	5.980
GP-general practitioner	1.550	1.580	1.730	1.760	2.090	2.240	2.450	2.550
Doctor of Traditional Medicine	90	90	100	140	110	160	400	510
Oral and maxillofacial surgeon	145	150	160	170	230	240	340	360
Doctor of Preventive Medicine							50	260
Pharmacist	410	530	580	690	800	1.080	1.135	1.140
Bachelor of Nursing	140	140	115	140	300	610	990	1.160
Bachelor of Medical Engineering	135	130	210	200	200	250	450	568
Bachelor of Public Health	165	190	180	270	260	180	230	383
FulltimeTransfer Degree	1.660	1.460	1.820	1.745	2.909	2.150	2.378	3.290
GP-general practitioner	1.400	1.160	1.430	1.235	1.260	1.240	1.250	1.889
Doctor of Traditional Medicine	80	90	100	130	280	330	400	454
Doctor of Preventive Medicine	180	210	290	380	550	580	728	866
Partime	300	370	730	1.200	1.570	1.800	1.930	2.689
Bachelor of Nursing	195	250	560	930	1.250	1.470	1.530	2.182
Bachelor of Medical Engineering	105	120	170	190	180	180	230	308
Bachelor of Public Health				80	140	150	170	199
Fulltime-Second Degree						47	148	155
Pharmacist						48	148	155
Total	4.925	4.320	5.235	5.845	7.190	8.327	9.821	12.033

Source: Department of Science, Technology and Training, 2013

CONCLUSION

This article clarified key concepts in human resources, health human resources, development of health human resources, and various health human resource features. They were written based on theoretical generalizations and diverse researches of reliable scholars and experts in these fields. Also, the paper provided the criteria for assessing the quantity and quality of health human resources. Therefrom, the functions of health personnel in industrialization and socio-economic development were outlined. Furthermore, the writer discussed the state of health human resource development in certain developing countries around the world, as well as Vietnam, in order to contrast the common issues that these countries encounter while developing human resources. Finally, a few recommendations were made on how Vietnam may improve its health human resources in the future.

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