CRC 1342 | No. 32

Social Policy Country Briefs

Vietnam

Linh Truong
Achim Schmid

The Health Care System in Vietnam

Global Dynamics of Social Policy CRC 1342
DFG Deutsche Forschungsgemeinschaft

Linh Truong, Achim Schmid
The Health Care System in Vietnam
CRC 1342 Social Policy Country Briefs, 32
Edited by Julian Götsch
Bremen: CRC 1342, 2023

Universität Bremen

SFB 1342 Globale Entwicklungsdynamiken von Sozialpolitik / CRC 1342 Global Dynamics of Social Policy

A04: Global developments in health care systems and long-term care as a new social risk

Contact: crc-countrybrief@uni-bremen.de

Postadresse / Postaddress:
Postfach 33 04 40, D - 28334 Bremen

Website:
https://www.socialpolicydynamics.de

[DOI https://doi.org/10.26092/elib/2418]
[ISSN 2700-4392]

Funded by the Deutsche Forschungsgemeinschaft
(DFG, German Research Foundation)
Projektnummer 374666841 – SFB 1342

Linh Truong
Achim Schmid

The Healthcare System in Vietnam

CRC 1342
No. 32

The Healthcare System in Vietnam

Linh Truong and Achim Schmid*

Content

* Both CRC 1342, University of Bremen, leelinh95@gmail.com, aschmid@uni-bremen.de

1. Country overview

Source: https://ontheworldmap.com/vietnam/ (Accessed: August 9, 2023)

- Sub-Region: South-east Asia (UN Standard)
- Capital: Hanoi
- Official Language: Vietnamese
- Population size in 2022: 98.2 million (World Bank 2023a)
- Share of rural population in 2022: 61% (World Bank 2023a)
- GDP in current US$ in 2022: 1408.8 billion (World Bank 2023a)
- Income group: Lower-middle-income (World Bank classification)
- Gini Index in 2020: 36.8 (World Bank 2023b)
- Colonial period: French colony 1884 – 1945
- Declaration of Independence: 1945, firmly established through the Geneva Accords dissolving French Indochina in 1954 (Ladinsky and Levine 1985)

2. Selected health indicators

Indicator, last year available	Vietnam	Global Average
Male life expectancy (years) in 2021	69	69
Female life expectancy (years) in 2021	78	74
Under-5 mortality rate in 2021	21	38
Maternal mortality rate (modelled estimate, per 100,000 live births) in 2020	124	223
Prevalence of HIV, total (% of population ages 15-49) in 2021	0.3	0.7
Incidence of tuberculosis (per 100,000 people) in 2021	173	134

Source: WHO (2023a)

3. Legal Beginning of the System

Name and type of legal act	National Health Plan stipulated by the Vietnamese Government in 1954 (Ladinsky and Levine 1985)
Date the law was passed	NA
Date of *de jure* implementation	1954
Brief summary of content	The National Health Plan defined the healthcare system as a community-based provision of medical care using modern, scientific treatment. The plan highlights prevention, local staffing, and the integration of traditional medicine. It was financed and planned by the central government (Ladinsky and Levine 1985).
Socio-political context of introduction	Historical traces of state involvement in healthcare can already be identified in regulations of the colonial administration of French Indochina affecting the territories of the current states of Vietnam, Cambodia, and Laos. In 1905, the Indigenous Medical Assistance (Assistance Médicale Indigène) was introduced. The programme mainly addressed the control of infectious diseases, but involved free care for the indigenous population on a very low level (Monnais 2006; Monnais and Tousignant 2006; Monnais-Rousselot 2002). Due to the rudimentary services, healthcare provision and the health status of the population have been described as "abysmal" with only 2.2 hospital beds per 10,000 people concentrated in urban centres before 1945 (Ladinsky and Levine 1985, 258). First steps to establish a more comprehensive public healthcare system were taken after the declaration of independence in 1945. Healthcare issues were addressed by ministerial circulars during the First Indochina War (1946-1954) (e.g., Ministry of Health of Vietnam 1949). Independence was recognized through the Geneva Accords in 1954 separating Vietnam into the Democratic Republic of Vietnam (North Vietnam) and the Republic of Vietnam (South Vietnam). The beginning of a healthcare system under public responsibility – for the definition of system beginnings see De Carvalho and Fischer (2020) – refers to North Vietnam as the predecessor of the current Socialist Republic of Vietnam. The development of the state-financed national health system occurred in context with » the need to control infectious diseases, » the need to improve population health to foster economic development, » ideological positions of the leading communist party favouring a strong role of the state in health and healthcare as a citizenship right, and » the establishment of a centrally planned economy (London 2008; Ladinsky and Levine 1985).

4. Characteristics of the System at Introduction

a. Organizational structure

The healthcare system (HCS) established in North Vietnam was characterized as an extensive, well-planned network of public health providers for basic curative and preventive services (Chaudhuri and Roy 2008). Health services were free at the point of care, though pharmaceuticals had to be paid out of pocket (Priwitzer 2012: 102). While healthcare is centrally controlled, it is directed through different specialty institutes at provincial, district, and local levels, where the Vietnam Ministry of Health (MOHVN) shares organizational responsibility with the respective councils of the Peoples' Committees (Ladinsky and Levine 1985: 257-60).

b. Coverage

De jure, the whole population was covered by the public healthcare system (Birt 1990). Free primary care contributed to a marked reduction in child and maternal mortality between 1954 and 1975 (Lieberman and Wagstaff 2009). While the system constantly suffered from scarce resources due to war and a weak economy, the extension of the HCS to South Vietnam after reunification intensified difficulties in financing medical care (Chaudhuri and Roy 2008). The promise of universal access and healthcare as a right of citizenship was contested by the country's poor economic situation (London 2008).

c. Provision:

The basis of healthcare provision was a "wide-spread network of Communal Health Centres (CHCs) and village workers" (Priwitzer 2012: 97). Preventive and basic healthcare services were provided in CHCs, while "curative services were to be delivered through state hospitals administered at the district, provincial, and central-government levels" (London 2008: 117). Information on healthcare infrastructure in this early phase is fragmentary.

- 1945 – 1954: 135 hospitals, 790 clinics, 740 ambulance stations and 300 maternity homes (Central Propaganda Department of Binh Phuoc province).
- 1954 – 1975: 1,180 clinics and hospitals, 56,600 hospital beds. 29,600 physicians (Central Propaganda Department of Binh Phuoc province).
- 1975 – 1985: 11,059 clinics and hospitals, 202,200 hospital beds, 62,300 physicians (Central Propaganda Department of Binh Phuoc province).
- Several hospitals were established throughout the years as a result of the cooperation between Vietnam and other countries (see „8. Role of global actors", p. 9).

d. Financing:

The system was fully financed through general government revenues (Ladinsky and Levine 1985; London 2008).

e. Regulation:

The Faculty of Medicine and Pharmacy (later named the Ministry of Health, MOHVN) was the main agency responsible for organizing the system at the national level, including the manufacturing and distribution of pharmaceuticals, training, and the coordination of medical research.

5. Subsequent historical development of public policy on health care

a. Major reform I

Name and type of legal act	Law on People's Health Protection (The National Assembly of Vietnam 1989)
Date the law was passed	30.06.1989
Date of *de jure* implementation	30.06.1989
Brief summary of content	The Law on the Protection of People's Health 1989 is a law defining the responsibilities of the agencies, organizations and individuals concerned and the measures taken by the state to protect the health of Vietnamese citizens. The law endorses the central role of the state for organizing and financing healthcare with the Ministry of Health and People's Councils and People's Committees responsible for implementation at different levels (Art. 3). At the same time, the law stipulates cost sharing (Art. 27), while previously no formal payments had been involved in the provision of healthcare. Moreover, the private sector is recognized as a provider of health services in several articles of the law (The National Assembly of Vietnam 1989).
Population coverage	The law confirms the responsibility of the state to provide healthcare for all its citizens.
Type of benefits	Primary care in communal health stations, inpatient care (Witter 1996). Besides formal user fees, informal payments are common and often exceed the formal fees (Dao, Waters and Le 2008) Patients bear the full costs of outpatient care and pharmaceuticals (Chaudhuri and Roy 2008).

Socio-political context of introduction	The healthcare reform is part of the "Doi Moi" economic reforms implemented from 1986 with the goal of transforming the centrally planned economy into a "socialist-oriented market economy" (Witter 1996; Long 2008; Priwitzer 2012). This involved de-collectivization, encouraging of private sector production and liberalization, with positive effects on the economy as annual growth rates averaging between 7 and 8 % in the 1990s (Priwitzer 2012). While the previous healthcare system was exclusively based on public provision without (formal) payments at the point of service, the World Bank reports that private out-of-pocket spending amounted to nearly 84 % of total health expenditure in 1991. This was attributed to price increases for drugs which were no longer subsidized by external funding from the Soviet Union. Further, the use of public health facilities dropped from the late 1980s onwards as user charges were implemented and providers offered services in private practices (Gertler and Litvack 1998). Outpatient services and drugs had to be paid almost exclusively out of pocket, while public authorities still financed and provided most inpatient care (Chaudhuri and Roy 2008)

b. Major reform II

Name and type of legal acts	Ministerial Decree No. 299/HDBT of 15.08.1992: Establishment of compulsory health insurance as a separate social security scheme for civil servants and pensioners; Health Insurance Law No. 25/2008/QH12; Health Insurance Amendment Law No.46/2014/QH13
Date the law was passed	15.08.1992 (Decree) 15.11.2008 (Law) 13.06.2014 (Amendment)
Date of *de jure* implementation	NA (Decree) 01.07.2009 (Law) 01.01.2015 (Amendment)
Brief summary of content	The decree of 1992 established a separate health insurance fund for civil servants and pensioners, financed by employer (2 % of the payroll) and public employee contributions (1 % of salary/pension). The Health Insurance Law of 2008 expanded compulsory insurance substantially to about one third of the population in 2009 including the indigent and children under 6 for whom the government pays insurance premiums. The 2008 Health Insurance Law reorganized eligibility for different groups, revised funding arrangements, co-payment rules, and provider remuneration (Le et al. 2020, Nguyen et al. 2023). Moreover, the law established a commitment to universal health insurance coverage (Priwitzer 2012). The 2014 amendment expanded mandatory health insurance coverage to all households and abolished the voluntary public insurance alternatives that had been available since 1998 for defined groups (Le et al. 2020).
Population coverage (compulsory insurance) (Dao et al. 2008, Le et al. 2020, Nguyen et al. 2023)	1992-98: civil servants, pensioners (5.4% of population), state employees, private sector employees in enterprises with more than ten employees; 1998-05: employees, people awarded for meritorious services for the revolution, welfare recipients; 2005-08: members of the National Assembly and People's Committees, overseas students, veterans, the poor, ethnic minorities, the elderly over 90, and the disabled; 2008-14: children under 6, the near-poor, pupils, students, farmers (over 40 % of population); 2014: all households (about 90% coverage in 2016)
Type of benefits (Le et al. 2020: appendix I)	1992: inpatient care, outpatient care, consultation fee, list of essential medication and consumables, plus 1998: medication and consumables, essential drugs, plus 2005: pregnancy check-up, transportation, treatment for birth defects and inborn diseases, plus 2008: treatment for sexually transmitted diseases, screening (not implemented by 2020), plus 2014: treatment of squint, short-sightedness, and refractive defects for children under 6, treatment in case of attempted suicide or self-inflicted injuries and physical or mental injuries caused by own violations of the law

Socio-political context of introduction	Besides government healthcare provision for Vietnamese citizens, state employees and officials also had access to health insurance, which had been established in 1961 (Son 2007). Due to the economic liberalization reforms of the late 1980s and the deregulation of the healthcare sector, out-of-pocket payments for patients increased substantially, with adverse effects on accessibility to health services (Chaudhuri and Roy 2008; Dao, Waters, and Le 2008). The expansion of social health insurance was therefore implemented to augment healthcare financing and improve access to health services (Le et al. 2020). In 1992, health insurance was established as a separate insurance scheme covering active and retired civil servants and expanded to include state employees and private sector companies with more than 10 employees. In 1998, the provincial funds were merged into a single national fund. Further incremental reforms by ministerial decrees up to 2008 provided for voluntary enrolment and compulsory insurance for additional groups. The Health Insurance Law of 2008 included the commitment to achieve universal health coverage, i.e., the inclusion of the whole population in social health insurance schemes. Voluntary enrolment was used to prepare for compulsory insurance, which was finally implemented in 2014 (Le et al. 2020). The government subsidizes or takes full responsibility for contribution payments for groups with little or no income.

6. Description of current health care system

a. Organizational structure

The healthcare system is described as a pyramid structure with four administrative levels – communal, district, provincial, and central (Le et al. 2010; Oanh 2021; Nguyen 2021). At the bottom level about 11,100 communal health stations and more than 96,000 village health workers provide primary care and serve as an entry point to the healthcare system. Services include, e.g., "mother and child health care, family planning, treatment for acute respiratory infections, immunization and treatment of common ailments" (Le et al. 2010). At the district level, there are 351 polyclinics and 679 district hospitals. The provincial level comprises 165 general hospitals, 214 specialized hospitals and 51 sector hospitals. District and provincial hospitals provide general, less technical health services. At the top, central level, there are 47 healthcare facilities (hospitals, leprosariums and sanatoriums), of which 40 general and special hospitals with nearly 30,000 beds provide tertiary care (figures for 2020/21, Nguyen 2021: 4; MOHVN 2020). As a rule, the insured need to register with healthcare facilities close to their residence or work place at the communal or district level (Vuong et al. 2021). Access to health services outside the registered district or at the provincial and central level is only covered by social insurance if patients present a referral. Recently, there have been policy initiatives to adapt this strict, hierarchical organization. Initiatives to integrate care levels, organize services across districts and regions, and reduce restrictions on the choice of provider are expected to transform the pyramidal structure in the near future (Nguyen et al. 2021; Nguyen et al. 2023).

b. Coverage

Percentage of population covered by social health insurance

Year	2008	2010	2012	2014	2016	2017	2018	2019	2020	2022
Percentage	43.8	60.9	66.4	71.0	81.8	85.4	86.8	89.1	90.9	92.0

Source: MOHVN 2020

In 2008, as a result of the introduction of mandatory insurance for formal employees, population coverage increased to 43.8 %. Extensions of the mandate to further groups as well as voluntary insurance options raised the coverage rate to 71 % by 2014. In the same year, voluntary public insurance schemes were abolished and a general mandatory insurance was implemented, taking effect in 2015 (Le et al. 2020), after which the coverage rate increased by 21 percentage points. In 2022, about 92 % of the population were covered by social health insurance (VSS 2023; MOH 2020). Despite the general mandate, about 8 % of the population – mainly people working in the informal sector or residing in rural areas – were not enrolled in the statutory insurance scheme (Oanh 2021: 10). Since there is no link between citizens' tax or identification numbers and social health

insurance, population figures without insurance remain unknown. The absence of sanctions for disregarding the requirement and the possibility to enroll only in periods when health needs arise also reduce incentives to register (Le et al. 2020).

c. Provision

- Number/density of physicians and nurses in 2020:
  - 95,745 physicians, 9.81 physicians per 10,000 population
  - 140,539 doctors and assistant doctors, 14.4 per 10,000 population
  - 105,831 high and 2nd degree nurses, 10.9 per 10,000 population
  - 27,531 university and 2nd degree midwives, 2.8 per 10,000 population
- Number/density of hospital beds

	Hospitals	Facilities	Hospital beds	Beds per 10,000 of population	Beds in % of total
Central level	General	20	20,681	2.12	7.0%
	Special	20	8,825	0.90	3.0%
	Traditional	3	840	0.09	0.3%
Provincial level	General	162	94,244	9.66	32.1%
	Special	177	34,500	3.54	11.7%
	Traditional	57	9,605	0.98	3.3%
District level	General	712	99,766	10.22	34.0%
Local level	General	22	4,090	0.42	1.4%
Private hospitals	N/A	228	21,122	2.16	7.2%
Total		1,401	293,673	30.09	100.0%

Source: MOHVN 2020, own calculations

The benefit package provided by the social insurance scheme is considered generous for a lower middle-income country. It is based on historical provisions and social insurance laws as well as lists drawn up at provincial level (Le et al. 2020).

d. Financing

Healthcare financing in 2020	
Total expenditure on health in % of GDP	4.7
Government financing arrangements % of current health expenditure	17.2
Social health insurance % of current health expenditure	28.0
Voluntary health insurance % of current health expenditure	4.9
Out-of-pocket expenditure % of current health expenditure	39.6
Enterprise financing schemes % of current health expenditure	7.3
Non-profit organizations, development agencies % of current health expenditure	2.3
External health expenditure % of current health expenditure	0.8

Source: WHO 2023b

Government spending includes subsidies for population groups that are unable to pay contributions to social health insurance. The share of out-of-pocket payments is high considering that 92 % of the population are covered by social insurance, and reflects substantial co-payments. Generally, the co-payment rate for employees is 20 %, for pensioners and near-poverty patients 5 %, while other groups such as children under six and the poor are exempt from co-payments. Yet, patients also have to pay for drugs and medical supplies not included in the

reimbursement lists. Moreover, bypassing lower levels of care to access provincial and central level healthcare facilities involves high costs (Oanh 2020).

e. Regulation of dominant system

Actors responsible for the regulation:

- The MOHVN is the central actor responsible for the regulation of the healthcare system. The governance follows a top-down approach, with the central government and the MOHVN setting the targets and the provincial, district, and local governments as well as health authorities at provincial and local levels being responsible for implementation (Oanh 2021). Among the responsibilities of the MOHVN listed in Art. 6 of the Healthcare Law of 2014 are, e.g., planning, and formulating of health insurance policies, coordinating the healthcare system, care and improvement of people's health, monitoring, assessment, and review of health insurance, etc. The MOHVN also regulates reimbursement prices for health insurance services (Le et al. 2020).
- The MOHVN has political accountability for social health insurance. The Vietnam Social Security Agency (VSS) is responsible for collecting contributions and the pooling of funds. Funds are pooled at the national level, except for a separate health insurance pool for the armed forces. The Provincial People's Committees contribute to the funds as they organize and finance the insurance of household members not entitled to social insurance due to their employment status or other circumstances and who are merely enrolled on the basis of citizenship (Le et al. 2020: 3). While the benefit package is defined by the MOHVN and adjusted at local levels, the VSS reviews the allocation of funds, and has been known to refuse to pay providers, revealing tensions between the MOHVN and the VSS management of social insurance (Le et al. 2020: 9).

7. Co-existing systems

There are no co-existing systems.

8. Role of global actors

Due to its economic isolation from the mid-1960s, Vietnam was dependent on the support of soviet bloc countries to provide medical supplies (Ladinsky and Levine 1985: 257), and pharmaceuticals were subsidized by the Soviet Union until the late 1980s (Gertler and Litvack 1998). Several hospitals were established throughout the years as part of a cooperation between Vietnam and other socialist countries, e.g., the Soviet Union 1956/57 (Vietnam Friendship Hospital 2023), Cuba from 1970 to 1973 (Vietnam-Cuba Friendship Hospital 2023), and the German Democratic Republic from 1973 to 1991 (Vietnam-Germany Friendship Hospital 2023). International cooperation during this period included the training of physicians abroad, not only in socialist countries but also in France, Sweden, and the Netherlands (Ladinsky and Levine 1985: 264). In the 1990s, as part of the Bamako Initiative, UNICEF supported the healthcare system by providing communal health centres with essential drugs (Ensor and Pham 1996). In the early 2000s, the World Bank and the USA financed programmes for HIV/AIDS patients (Adams 2005). The financial involvement of global actors has declined from 4.2 % in 2000 to only 0.8 % of total health expenditure in 2020 (WHO 2023b).

9. List of additional relevant legal acts:

An extensive list of laws and decrees related to the development of the healthcare system in Vietnam can be found in Le et al. (2020), Mazur and Duc (2020) and Priwitzer (2012: Annex 6 with a focus on health equity). Examples include:

- Decree No. 58/1998/ND-CP of 1998: Establishment of voluntary health insurance and regulations concerning a single financing pool and co-payments.

» Decree No. 63/2005/ND-CP of 2005: Expansion of eligible groups for both the compulsory and voluntary schemes.
» Decree No. 85/2012/ND-CP of 2012: Reductions of government funds for public hospitals subsidies. Increased relevance of health insurance in healthcare financing.
» Health Insurance Amendment Law No.46/2014/QH13, of June 2014: Abolition of voluntary health insurance scheme and revision of eligibility criteria, contributions, and benefit package.

References

Adams, S.J. (2005). Vietnam's Health Care System: A Macroeconomic Perspective. Tokyo: International Symposium on Health Care System in Asia.

Birt, Christopher A. (1990). Establishment of Primary Health Care in Vietnam. *British Journal of General Practice* 40 (337): 341-344.

Chaudhuri, A. & Roy, K. (2008). Changes in out-of-pocket payments for healthcare in Vietnam and its impact on equity in payments, 1992-2002. Health Policy 88 (1): 38-48. DOI: https://doi.org/10.1016/j.healthpol.2008.02.014.

Dao, H. T., Waters, H. & Le, Q. V. (2008). User fees and health service utilization in Vietnam: How to protect the poor? *Public Health* 122 (10): 1068-1078. DOI: https://doi.org/10.1016/j.puhe.2008.01.002.

De Carvalho, G. & Fischer, J. (2020). Health and long-term care system introduction and reform – concepts and operationalisations for global and historical comparative research. SFB 1342 Technical Paper Series (3). Bremen: SFB 1342.

Ensor, Tim, & San, P.B. (1996). Access and Payment for Health Care: The Poor of Northern Vietnam. *The International Journal of Health Planning and Management* 11 (1): 69-83.

Gertler, P. & Litvack, J.I. (1998). Access to Health Care during Transition: The Role of the Private Sector in Vietnam. In: Dollar, D. Glewwe P. &. Litvack, J.I. (eds.) *Household Welfare and Vietnam's Transition*, 240-259. Washington, D.C.: The World Bank.

Ladinsky, J.L. & Levine, R.E. (1985). The Organization of Health Services in Vietnam. *Journal of Public Health Policy* 6 (2): 255-268.

Le, D-C., Kubo, T., Fujino, Y., Pham, T-M., & Matsuda, S. (2010). Health Care System in Vietnam: Current Situation and Challenges. *Asian Pacific Journal of Disease Management* 4 (2): 23-30.

Le, Q.N., Blizzard, L., Si, L., Giang, L.T. & Neil, A.L. (2020). The evolution of social health insurance in Vietnam and its role towards achieving universal health coverage. Health Policy OPEN 1: 100011. DOI: https://doi.org/10.1016/j.hpopen.2020.100011.

Lieberman, S. & Wagstaff, A. (2009). Health Financing and Delivery in Vietnam: Looking Forward. Washington, D.C.: World Bank Publications.

London, J.D. (2008). Reasserting the State in Viet Nam Health Care and the Logics of Market-Leninism. *Policy and Society* 27 (2): 115-128. DOI: https://doi.org/10.1016/j.polsoc.2008.09.005.

Long, T.G. (2008). Vietnam: Social Health Insurance: Current Issues and Policy Recommendations. The ILO's Asia-Pacific Regional High-Level Meeting on Socially-Inclusive Strategies to Extend Social Security Coverage. Bangkok: ILO.

MOHVN, Ministry of Health of Vietnam. (1949). Circular of The Minister of Health on Health Examination for Civil Servants Before Recruitment, 1949. In 15-ZY/TL.

MOHVN, Ministry of Health of Vietnam. (2020). Yearbook of Health Statistics 2019-2020. Last accessed: 18.06.2023. https://moh.gov.vn/thong-ke-y-te.

Mazur, E. & Duc, V.T. (2020). The Healthcare Law Review: Vietnam. In: Grau, U. (ed.) *The Healthcare Law Review*, 196-210. 6th edition. London: Law Business Research.

Monnais, L. & Tousignant, N. (2006). The Colonial Life of Pharmaceuticals: Accessibility to Healthcare, Consumption of Medicines, and Medical Pluralism in French Vietnam, 1905–1945. *Journal of Vietnamese Studies* 1 (1-2): 131-166.

Monnais, L. (2006). Preventive Medicine and "Mission Civiliatrice". Uses of the BCG Vaccine in French Colonial Vietnam between the Two World Wars. *International Journal of Asia Pacific Studies* 2 (1): 40-66.

Monnais-Rousselot, L. 2002. Paradoxes d'une médicalisation coloniale. La professionnalisation du « médecin indochinois » au XXe siècle. Actes de la Recherche en Sciences Sociales 143 (3): 36-43. DOI: https://doi.org/10.3917/arss.143.0036.

Nguyen, C.M., Nguyen, M.P. & Luc, L.D.P. (2023). How Public Health Insurance Expansion Affects Healthcare Utilizations in Middle and Low-income Households: an observational study from national cross-section surveys in Vietnam. *BMC Public Health* 23:624. DOI: https://doi.org/10.1186/s12889-023-15500-6

Nguyen, H.V., Debattista, J., Pham, M.D., Dao, A.T.M., Gilmour, S., Nguyen, H.L., Nguyen, T.V., Le, P.M., Nguyen, P.T., Tran, A.T.N., Vu, K.D., Dinh, S.T., & Hoang, M.V. (2021). Vietnam's Healthcare System Decentralization: how well does it respond to global health crises such as covid-19 pandemic? *Asia Pacific Journal of Health Management* 16(1):i619. DOI: https://doi.org/10.24083/apjhm.v16i1.619

Oanh, T.T.M., Nguyen K.P., & Tuan. K.A. (2021). Sustainability and Resilience in the Vietnamese Health System. Vietnam: Health Strategy and Policy Institute.

On The World Map. (2023). Vietnam Maps. http://ontheworldmap.com/vietnam/

Priwitzer, K. (2012). The Vietnamese Health Care System in Change: A Policy Network Analysis of a Southeast Asian Welfare Regime. Singapore: ISEAS Publishing.

Son, T.V. (2007). Synthesis Paper on the Development of Income Security in Vietnam. Social Security Extension Initiatives in East Asia. ILO Subregional Office for East Asia.

The National Assembly of Vietnam. (1989). Law on protection for people's health 1989. 21-LCT/HDNN8. https://vanbanphapluat.co/law-no-21-lct-hdnn8-of-june-30-1989-of-people-s-health

The National Assembly of Vietnam. (2008). Law on Health Insurance. 25/2008/QH12. https://vanbanphapluat.co/law-no-21-lct-hdnn8-of-june-30-1989-of-people-s-health

United Nations. (2023). World Urbanization Prospects 2018. Last accessed 20.06.2023. https://population.un.org/wup/DataQuery/

Vietnam Friendship Hospital. (2023). General Introduction. Last accessed: 20.06.2023. http://benhvienhuunghi.vn/benh-vien-huu-nghi-60-nam-xay-dung-va-phat-trien/

Vietnam-Cuba Friendship Hospital. (2023). General Introduction. Last accessed: 20.06.2023. https://www.vietnamcuba.vn/general-introduction .

Vietnam-Germany Friendship Hospital. (2023). General Introduction. Last accessed: 20.06.2023. http://eng.benhvienvietduc.org/benh-vien-huu-nghi-viet-duc.html.

VSS, Vietnam Social Security (2023). Top 10 achievements of the social insurance sector in 2022." Last accessed: 20.06.2023. https://vss.gov.vn/english/research/Pages/statistics.aspx?CateID=202&ItemID=10833 .

Vuong, Q-H., La, V-P., Nguyen, M-H., Nguyen, T-H.T. & Ho, M.T. (2021). Good budget or good care: The dilemma of social health insurance in Vietnam. *SAGE Open Medicine* 9: 1-16. DOI: https://doi.org/10.1177/20503121211042512

Witter, S. (1996). 'Doi Moi' and Health: The Effect of Economic Reforms on the Health System in Vietnam. *The International Journal of Health Planning and Management* 11 (2): 159-172.

World Bank. (2023a). World Development Indicator Database. Last accessed 20.06.2023. https://data.worldbank.org/country/vietnam

World Bank. (2023b). Poverty and Inequality Platform. Last accessed 20.06.2023. https://data.worldbank.org/country/vietnam

WHO, World Health Organisation. (2023a). Global Health Observatory Database. Last accessed 20.06.2023. https://www.who.int/data/gho

WHO, World Health Organisation. (2023b). Global Health Expenditure Database. Lasst accessed. 20.06.2023. https://apps.who.int/nha/database/Select/Indicators/en.