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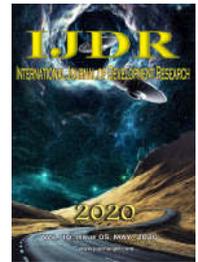
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RESEARCH ARTICLE

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FACTORS AFFECTING THE CHOICE OF PUBLIC OR PRIVATE HEALTH CARE FACILITIES IN VIETNAM

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ABSTRACT

The study aims to find out factors affecting the choice of visiting public or private health care facilities in Vietnam using logistic regression. Cross-sectional data from Vietnam Household Living Standards Survey (VHLSS) conducted in 2016 are used for this study. The study finds that most of variables were statistically significant, including household whose heads were elderly; ethnicity; residence place; education of household heads; household wealth; health insurance participation status and region. The strongest influence on choosing public health facilities in this study was health insurance participation status.

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INTRODUCTION

Vietnam's economic development over the past 30 years has achieved impressive results. The country has experienced sustainable economic growth of about 6.5% in recent years. Income per capita has remarkably increased from about US\$ 422 in 1986 to US\$2,567 in 2018 (The World Bank, 2019). These favorable macroeconomic conditions play essential role in healthcare development. Current health expenditure per capita doubles from US\$ 64 in 2008 to US\$ 130 in 2017 (World Health Organization, 2019). The average life expectancy is high with 73.1 years. Regarding health needs, Vietnam is undergoing epidemiological transition with an increase in Non-communicable diseases (NCDs) (Vietnam Ministry of Health, 2016). There was a slight decrease from 25% in 2006 to 23% in 2015 in the share of hospital admission due to communicable diseases (CDs), while the figure for NCDs increased significantly from 62% to 66% in the same period (Ministry of Health, 2017). NCDs account for three-quarters of the causes of death. Common causes of death among NCDs are related to cardiovascular disease, and diabetes (Vietnam Ministry of Health, 2017). The proportion of people diagnosed with hypertension is 43.1%, and that of people with diabetes is 31.1%.

Only 13.6% of diagnosed people with hypertension follow treatment, and the figure for diabetes is 28.9% (Vietnam Ministry of Health, 2018). Vietnam is experiencing a dramatic increase in the number of cancer patients (Vietnam Ministry of Health, 2016). The prevalent cancers are liver, lung, stomach and breast. Cancer is often detected and treated in the late stages resulting in increased treatment costs. The ability to prolong life and enhance the quality of life is, thus, limited. In meeting the healthcare needs of population, the public health system has experienced challenges including limited capacity to further increase fiscal space for health spending, shortage of human resources for health, capacity and quality of services supplied (Nguyen and Wilson, 2017). To deal with these challenges the Vietnamese government is shaping the development of the private health sector. Vietnam's health system is a mixed system that includes both public and private healthcare providers. However, public health providers take the leading role in medical care, education and research. The service delivery system is divided into 4 levels, including: (I) central level (central and regional hospitals) under the direct management of the Ministry of Health (MoH); (II) provincial level of providers managed by the Provincial Health Bureau (PHB); (III) district providers, managed by PHB; and (IV)

commune-level providers under management of District Health Bureaus or District Health Center (Partnership for Action in Health Equity, 2012). The total number of health facilities in Vietnam is now 13,508. The central level consists of 47 facilities, provincial level - 459, district level - 982, commune level - 11,083, other branches - 755, private and semi-public hospitals - 182 (Ministry of Health, 2017). The district and commune level play a key role in primary care. About 40% of people choose public health facility for outpatient care, while the figure for inpatient admission is 96% (Ministry of Health, 2017). The number of beds per 1,000 inhabitants in 2015 is 2.6 (Ministry of Health, 2017), which is lower than the recommendation of WHO (3.9 beds/1000 population) (Wise Consulting Finland Oy, 2017). This has led to the overload of many hospitals at tertiary level. Number of doctors per 1,000 population in 2016 is 0.82 that is much lower than neighboring China (1.8 doctors/1000pop.) (The World Bank). The majority of private hospitals in Vietnam are small and established in urban areas (Nguyen and Wilson, 2017). The share of private hospitals in total hospitals is 13% in 2016, accounting for 5.6% of total hospital beds.

The growth of the private hospital sector in Vietnam is modest. The average growth rate during the period from 2011 to 2016 is 6.8% (Cowley *et al.*, 2019). The private health facilities in Vietnam supply services for people who desire and able to pay in both urban and rural settlements (Ha and Berman, 2002). The private sector may be in the form of quacks, traditional healers, single-doctor clinics, private clinics, small hospitals, large hospitals which provide a range of different services such as pediatrics, sexual and reproductive health, antenatal care, family planning and traditional medicines (Nguyen and Wilson, 2017). Recently, Vietnam has implemented a number of public hospital reforms, such as promoting financial autonomy in public hospitals, developing some forms of public-private partnerships to enhance the efficiency of public hospitals (Cowley *et al.*, 2019). The “social mobilization” policy has been adopted to encourage private investment in public hospitals to create and retain their revenues in the context of fully financial autonomy of public hospitals. The Vietnamese government has set a target of 20% of the beds provided by the private sector by 2020 (Cowley *et al.*, 2019).

Several studies in the past have shown that sociocultural, demographic and health care systems factors determine the choice of health care utilization in public or private health facilities (Rout, 2015). In particular, previous studies have found that education, economic status, residence, household size, household with older adults and/or young children, cost of healthcare, accessibility and availability of health care services affect the utilization of health care services in public or private-run providers (Rout, 2015; Rout, Sahu and Mahapatra, 2019; Ayenew *et al.*, 2017; Uchendu *et al.*, 2013; Dey and Mishra, 2014; Ensor and Cooper, 2004; Gong and Kendig, 2016a). Income or expenditure of household is one of the significant determinants (Gong and Kendig, 2016b; Ha and Berman, 2002). People with higher incomes prefer private to public health services (Rout, Sahu and Mahapatra, 2019). Another important factor is residence place. Households from urban setting prefer to visit private-run hospitals, whereas those from rural area tend to favour the public health services. Hoeven and Kruger (2012), Ensor and Cooper (2004), Rout (2015) showed that time, education, caste, income and cultural practices act as hindrance to demand for health care.

Therefore, Haddad and Fournier (1995) found that the demand for care of individuals is a function of their demographic, social and economic characteristics as well as those of the health systems. The affordability and the pattern of payment mechanism, whether the patients pay from their own pocket or are insured, have a role in the making decision of public or private health service utilization of the patients (Rout, 2015). In Vietnam, health insurance is a key health financial mechanism to help households access to health care services and avoid catastrophic health expenditure (Minh *et al.*, 2013, Somanathan *et al.*, 2014). Health insurance scheme in Vietnam increases the use of inpatient services for the poor and for students, and the use of outpatient services for the students (Guindon, 2014). Similarly, Nguyen (2011) found that voluntary health insurance in Vietnam significantly increases the annual outpatient and inpatient visits for the insured. In another study, Nguyen (2016) also showed that free health insurance programs for children aged under 6 in Vietnam has positive effect on the number of health care visits. Awareness of health status is one of the essential factors influencing most to seeking care at public or private providers. In Vietnam, the decision whether or not to use health care services depends significantly on the severity of illness (Thang, 2017).

People with mild illness are less likely to use public health services than those who are seriously ill. This suggests that the health conditions are associated with the use of health services in public health facilities. It is important to note that, studies regarding factors affecting decision to visit public or private health care facilities in Vietnam are limited. In this context, this study is conducted to identify the factors, including demographic, socio-economic factor, health insurance status, settlement type, region and health need factor that determining the choice of visiting either public or private health care providers. Findings from the study might offer important evidence for policymakers to best support mixed health system in Vietnam to achieve Universal Healthcare Coverage.

METHODOLOGY

Data sources: The data used for this study were obtained from Vietnam Household Living Standards Survey (VHLSS) 2016 conducted every two years. The survey had applied a stratified multistage sampling procedure. The survey selected a nationally representative sample of 9,399 households with 35,793 individuals across country. The final sample used for this study was 5364 households. The data include socio-economic characteristics of households, health condition, out-of-pocket expenditure, and outpatient and inpatient care utilization from the public and private health facilities.

Model specification and variables: We used the multivariate logistic regression to identify the factors influencing utilization of either public or private facility in Vietnam. In the model, dependent variable was the choice of either public or private healthcare facility. The independent variables include demographic characteristics such as age, sex, marital status, education of household heads, ethnicity, residence place (urban/rural), household composition (family size, share of elderly aged above 60, share of children aged under 6). Wealth quintile, health insurance participation status, presence of severe illness and region variables were also included as covariates. Age of household head was classified as ≤ 30 , 31–40, 41–50 and ≥ 60 groups; marital status was defined as currently married, and never married or

separated/divorced/widowed; and educational level of household head was categorized into 6 groups: not completed primary school, completed primary school, completed lower secondary school, completed upper secondary school, completed Vocational school, completed College, University, Master, PhD. Economic class was divided into wealth quintiles – poorest, second poorest, middle-income, second richest and richest. The wealth measured in quintiles was obtained from expenditure of household. Health insurance status was classified as household with at least one member insured and household with no one having health insurance. Region was classified as Red River Delta, Northern Midlands and Mountains, North and South Central Coast, Central Highlands, South East Mekong River Delta. In the model, the lowest education was considered as the reference group for education category, the lowest expenditure quintile for wealth quintile and Red River Delta for region.

Association between visiting either public or private facility and a set of independent variables was examined by applying logit function, which is as follows:

$$\text{Logit } \pi = \log \left(\frac{\pi}{1 - \pi} \right) = \beta_0 + \beta X + e$$

Where the probability of health care utilization either from public or private facilities was denoted π , log odds in the outcome for the reference group was given by parameter (0), differential in the log odds in the outcome for different determinants was estimated by parameters (X). The odds ratio with 95% confidence interval (CI) were used for presenting the results of logistic regression. STATA version 14 was used to carry out all analyses.

RESULTS

Socioeconomic characteristics of the sample: Overall, of 5364 households in the sample who sought and used outpatient and inpatient services in last 12 months of preceding the VHLSS survey, 4,337 (80.85%) households used public health facilities, 1,027 (19.15%) households used private health facilities. Table 1 shows the description of characteristics of households using health services at public and private health facilities in Vietnam. Among households visiting public health facilities, those with the head aged over 60 years used the most with 29.6%. However, among households seeking care at private health facilities those where the head aged between 41 and 50 used the most with 31.16%. In terms of sex of household head there were no significant differences in the types of services providers used. Characteristic of ethnicity shows that among those visiting public facilities, 3,394 (78.26%) households were Kinh or Hoa, and 943 (21.74%) households belonged to ethnic minority groups. Among those who used private facilities, 951 households (92.60%) were Kinh or Hoa and 76 households were ethnic minorities (7.40%). The residence place showed that 1,206 (27.81%) households visiting public providers dwelled in urban area and 3,131 (72.19%) lived in rural area. In the group of households using private health facilities, 379 households (36.90%) resided in urban area, and 648 (63.10%) lived in rural setting. No significant marital status of household head differences were seen in the types of provider visited. The education status showed that the majority (57.46%) of households whose heads were illiterates, visited public providers.

The proportion of households visiting public providers decreased with increasing wealth quintile, while the proportion of households using private facilities was on the rise with increasing wealth quintile. Almost 24.5% of those visiting public health providers belonged to the poorest quintile. However, about 23% of those visiting private facilities belonged to the fourth quintile. Utilization of outpatient and inpatient services at public and private health providers across quintile groups is provided in Figure 1. Households from wealthier quintile tended to use outpatient services at private health providers more than those from lower wealth quintile groups, and the largest proportion of users of that type of health providers was among the third and the fourth expenditure quintile groups with above 25%. However, for inpatient care utilization, the difference in utilization frequency between the highest and the lowest quintiles was slight. There were 4,172 (96.2%) households who used public health facilities participated in health insurance. There were 874 (85.10%) households seeking care at private health facilities enrolled in health insurance. About 29.14% of households whose members experienced severe illness used public facilities, whereas the figure for private facilities was only 10%.

The use of public and private health facilities followed different patterns across regions. For example, more households from Northern Midlands and Mountains (22.4%) utilized public facilities than those from Red River Delta (20.6%), whereas households from Red River Delta visited private providers about 2.6 times more than those from Northern Midlands and Mountains. Utilization of outpatient and inpatient services at public and private health providers is shown in Figure 2. The overall utilization of the public health facilities, in Vietnam, was about 3.7 times more than that of the private health facilities. The utilization of public health providers for outpatient care was highest in Northern Midlands and Mountains with 91.8%, followed by Northern and South Central Coast with 82.34%. However, reliance on private sector was the highest in Mekong River Delta with 35.82%. The pattern is quite similar in Central Highlands with 26.86% of households relying on outpatient care at private providers. For inpatient care, most of households in Vietnam choose healthcare services utilization in public health facilities across the country.

The mean household size among households using public health facilities was 3.81 and the standard deviation (SD) was 1.65. Meanwhile, the mean household size among households using private health facilities was 3.64 with SD of 1.43. The mean share of elderly aged above 60 among households using public health facilities was 22% and the SD was 33%, while the figure for those visiting private health facilities was 12% with SD of 27%. The means of the share of children under 6 were 8% and 6% for households using public and private health facilities respectively.

Factors determining the choice of health facilities: Table 2 shows the results of the logistic regression. The results show that most of variables were statistically significant. These variables include, household whose heads were elderly; ethnicity; residence place; education of household heads; household wealth; health insurance participation status and region. To be specific, the strongest influence on choosing public health facilities in this study was health insurance participation status.

Table 1. Distribution of demographic, socioeconomic and health characteristics of households in Vietnam, by the type of healthcare facility used

Variable	Type of health facility				p-value
	Public		Private		
	n	%	n	%	
<i>Categorical variables</i>					
<i>Age group</i>					
<=30	201	4.63	36	3.51	0.000
31-40	717	16.53	216	21.03	
41-50	1,028	23.7	320	31.16	
51-60	1,107	25.52	279	27.17	
>=61	1,284	29.61	176	17.14	
<i>Sex of household head</i>					
Male	3,207	73.95	761	74.1	0.919
Female	1,130	26.05	266	25.9	
<i>Ethnicity</i>					
Kinh or Hoa	3,394	78.26	951	92.60	0.000
Ethnic minority	943	21.74	76	7.40	
<i>Residence</i>					
Urban	1,206	27.81	379	36.90	0.000
Rural	3,131	72.19	648	63.10	
<i>Marital status of household head</i>					
Married	3,417	78.79	823	80.14	0.339
Never married/Separated/widowed	920	21.21	204	19.86	
<i>Education status of household head</i>					
Not complete primary school	2,492	57.46	606	59.01	0.001
Primary school	557	12.84	168	16.36	
Lower secondary	632	14.57	132	12.85	
Upper secondary	207	4.77	49	4.77	
Vocational school	248	5.72	33	3.21	
College, University, Master, PhD.	201	4.63	39	3.8	
<i>Wealth quintile</i>					
1st quintile (poorest)	1,066	24.58	159	15.48	0.000
2nd quintile	897	20.68	198	19.28	
3rd quintile	826	19.05	242	23.56	
4th quintile	790	18.22	240	23.37	
5th quintile (richest)	758	17.48	188	18.31	
<i>Health insurance</i>					
Yes	4,172	96.2	874	85.10	0.000
No	165	3.80	153	14.90	
<i>Severe illness status</i>					
Yes	1,264	29.14	102	9.93	0.000
No	3,073	70.86	925	90.07	
<i>Region</i>					
Red River Delta	896	20.66	186	18.11	0.000
Northern Midlands and Mountains	973	22.43	71	6.91	
North and South Central Coast	1,017	23.45	186	18.11	
Central Highlands	266	6.13	89	8.67	
South East	498	11.48	138	13.44	
Mekong River Delta	687	15.84	357	34.76	
<i>Continuous variables</i>					
Household size	Mean	Std. Dev.	Mean	Std. Dev.	0.004
Share of elderly aged above 60	3.81	1.65	3.64	1.43	0.000
Share of children aged under 6	0.22	0.33	0.12	0.27	0.000
	0.08	0.13	0.06	0.12	0.000

Households with at least one member insured had 3.45 times more likely to use public health facilities than households where no one was insured (OR 3.45; 95% CI 2.65-4.47). The second strongest influence of making decision about health care services utilization at public providers was health condition. Households where at least one member experienced severe illness had higher odds of choosing public health facilities in comparison with those reporting no severe health conditions (OR 3.19; 95% CI 2.55-3.99). The third strongest influences were the share of children aged under 6 and the share of elderly aged above 60 in households (OR 2.02; 95% CI 1.26-3.22 and OR 2.00; 95% CI 0.97-4.11 respectively). Furthermore, the oldest group was more likely to avail of public health services compared to the young group (OR 1.63 95%CI 0.97-2.73). The ethnicity had an impact on the choice of health providers. The households belonging to King or Hoa were less likely to use public health facilities than those from ethnic minorities.

The odds of utilizing services from public providers were lower among the households residing in urban setting compared to those living in rural area (OR 0.71; 95% CI 0.60-0.85). The effect of family size on the choice of health facilities was positive, which means that the higher the number of household members, the higher was the utilization of public health provider (OR 1.11; 95% CI 1.04-1.19). The odds of utilizing from public healthcare were higher among households whose heads completed lower secondary (OR 1.28; 95% CI 1.02-1.62), vocational school and College, University, Master, PhD. education level (OR 2.24; 95% CI 1.48-3.37 and OR 1.91; 95% CI 1.30-2.82 respectively) compared to the illiterate. The odds of public health provider utilization were significantly lower with increasing wealth quintile. Compared to the lowest quintile, the fourth quintile had 0.44 times less chances of using public facility (OR 0.44; 95% CI 0.34-0.59). The richest quintile was 0.52 times less likely to use public facility compared to the poorest quintile (OR 0.52; 95% CI

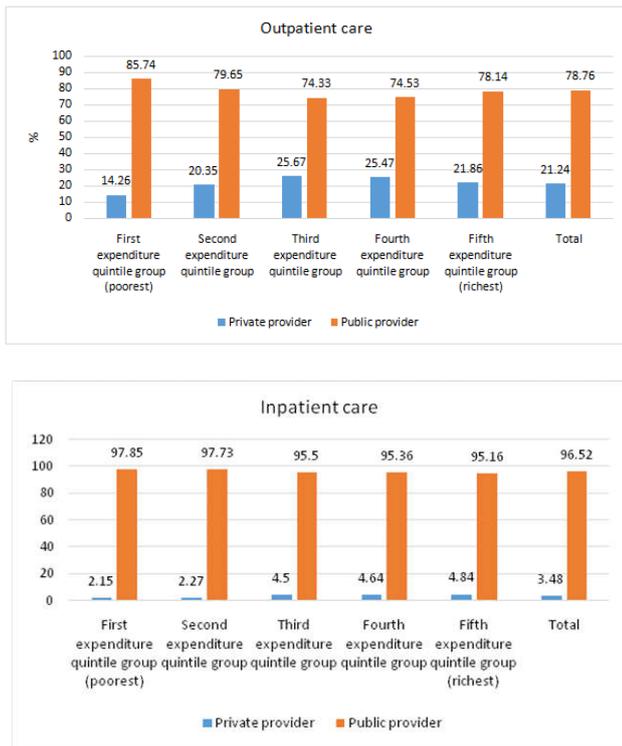


Figure 1. Utilization of outpatient and inpatient services at public and private health providers across quintile groups



Figure 2. Utilization of outpatient and inpatient services at public and private health providers across regions of Vietnam.

0.39–0.70). The magnitude and the direction of the association between the region where households live and the choice of public health facility varied according to regions. Among all regions, Northern Midlands and Mountains, Central Highlands, and Mekong River Delta were found to be statistically significant. While households locating in Northern Midlands and Mountains had almost 2 times more likely to visit public health facility, those from Central Highlands, and Mekong River Delta were around 0.5 times less likely to visit

public provider compared to those from Red River Delta region.

DISCUSSION

The study provided evidence on factors determining the choice of utilization of public or private health facilities of households in Vietnam. The results showed that most of variables were significantly associated with the choices of health facility in Vietnam. In particular, health service utilization at public provider was more among households whose heads aged above 60 years. The finding aligns with previous studies (Ayenew *et al.*, 2017; Uchendu *et al.*, 2013; Dey and Mishra, 2014). A study in Hong Kong showed that older people had remarkably higher healthcare needs and are more likely to choose public facilities (Yam *et al.*, 2009). The households with higher educated heads are more likely to visit public health providers. This result is contrary to that of Chatterjee *et al.* (2018) and Rout *et al.* (2019) who found that the likelihood of utilizing private hospital goes up with the increase in education level. It might be that better educated people are reportedly well informed, which enables them to make rational choices about health care utilization. Findings from this study indicate that utilization from public health facilities is less among richer households. The finding is consistent with earlier studies that demonstrate poorer (vs. richer) households are more likely to access public health facilities compared to private health facilities due to the lower cost of care provided by the former (Bajpai, 2014; Ayenew *et al.*, 2017; Dey and Mishra, 2014). A study in India suggested that the poor are five times more likely to utilize the public health than the private facility (Rout, *et al.*, 2019). Similarly, a study in Vietnam found that households from the fourth quintile are about 0.07 times less likely to use public health facilities than those belonging to the poorest quintile (Ha and Berman, 2002).

This study shows that ethnicity and residence place variables influence the choice of public and private healthcare facility. This finding was also reported by Pariyo *et al.* (2009) who that rural residents were more likely to visit public health facilities. The chances of utilizing the private health facility are more for Kinh or Hoa households in comparison to households who are ethnic minorities. Similarly, households living in urban area are more likely to choose private health facility than households dwelling in rural area. This utilization behavior may be explained by the fact that long waiting time in public health facilities (Le *et al.*, 2018). Another possible explanation for these results may be the inadequate and inappropriate care, unsatisfied with services availability in public health facilities. The perception of poor quality of diagnostic and treatment capacity at public health providers, perception that they will receive better treatment in private health facilities, and the convenience of accessing medical services might be also important reasons for making choice of visiting private health facility in some groups (Thang, 2017; Japan International Cooperation Agency, 2017; Somanathan *et al.*, 2014; The World Bank, 2016). The study demonstrates that there is positive association between the possession of health insurance and the use of public health providers, and health insurance is important determinant of choosing public health facility. This finding broadly supports the work of other studies in this area linking health insurance with the use of public health services (Ayenew *et al.*, 2017; Chatterjee *et al.*, 2018; Wong, 2007; Spaan, 2012), including Vietnam (Guindon, 2014). World health organization have noted the importance of health

Table 2. Results of logistic regression on the determinants of choice of type of health facilities (public vs. private)

Variables	OR	p	95CI		Marginal effects
			Lower	Upper	
Age group					
<=30	1				
31-40	0.83	0.397	0.53	1.28	-0.028
41-50	1.03	0.891	0.66	1.61	0.004
51-60	1.30	0.250	0.83	2.01	0.033
>=61	1.63	0.066*	0.97	2.73	0.057
Sex of household head					
Female	1				
Male	0.97	0.795	0.78	1.21	-0.004
Ethnicity					
Ethnic minority	1				
Kinh or Hoa	0.51	0.000***	0.38	0.69	-0.083
Residence					
Rural	1				
Urban	0.71	0.000***	0.60	0.85	-0.044
Marital status of household head					
Never married/Separated/widowed	1				
Married	1.14	0.296	0.89	1.47	0.017
Education status of household head					
Not complete primary school	1				
Primary school	0.92	0.472	0.74	1.15	-0.011
Lower secondary	1.28	0.034**	1.02	1.62	0.030
Upper secondary	1.28	0.171	0.90	1.82	0.030
Vocational school	2.24	0.000***	1.48	3.37	0.081
College, University, Master, PhD.	1.91	0.001***	1.30	2.82	0.069
Household size					
Share of elderly aged above 60	1.11	0.001***	1.04	1.19	0.013
Share of children aged under 6	2.00	0.059*	0.97	4.11	0.086
Wealth quintile					
1st quintile (poorest)	1				
2nd quintile	0.75	0.030**	0.58	0.97	-0.028
3rd quintile	0.51	0.000***	0.39	0.66	-0.077
4th quintile	0.44	0.000***	0.34	0.59	-0.097
5th quintile (richest)	0.52	0.000***	0.39	0.70	-0.073
Health insurance(Households with at least one member insured)					
No	1				
Yes	3.45	0.000***	2.65	4.47	0.153
Severe illness status					
No	1				
Yes	3.19	0.000***	2.55	3.99	0.143
Region					
Red River Delta	1				
Northern Midlands and Mountains	1.98	0.000***	1.43	2.73	0.062
North and South Central Coast	1.05	0.672	0.83	1.33	0.006
Central Highlands	0.54	0.000***	0.39	0.74	-0.090
South East	0.97	0.817	0.74	1.26	-0.004
Mekong River Delta	0.43	0.000***	0.34	0.53	-0.134
Wald chi2	778.49				
Pseudo- R2	0.15				
Prob > chi	0.000				

***Significance at 1%; **Significance at 5%; *Significance at 10%; OR = Odds Ratio; 95%CI = 95% Confidence Interval

insurance in the increase of healthcare utilization by eliminating user fees at the point of use, and considers health insurance as one of the means for achieving Universal Healthcare Coverage (World Health Organization, 2010). In this study, among households who reported outpatient and inpatient visits in the last 12 months of survey, those covered by health insurance are more likely to avail of public health services to private ones. This relationship may be explained by the fact that health insurance reduces financial burden for Vietnamese citizens in access to public health care services. Besides, another reason for this is that most of the private hospitals in Vietnam do not have a contract with the national health insurance agency (Cowley *et al.*, 2019). The likelihood of choosing public health facilities among households who have at least one member with severe illness is three times higher compared to households where no member is seriously ill. The result is likely to be related to the fact that the presence of severe illness required higher and prolonged expenditures, therefore imposing higher financial burden on families

(David, 2014; Fu *et al.*, 2014; Chatterjee *et al.*, 2018). Consequently, households are more likely to prefer public over private in health care utilization. The findings suggested that choice of public or private health facilities varies according to regions. We found that households in Northern Midlands and Mountains are almost twice more likely to prefer public health facility than those in Red River Delta.

Nevertheless, households in Central Highlands and Mekong River Delta are less likely to choose public health facilities than those in Red River Delta region. These differences in the decision making of selecting health care providers can be related to the differences in social and economic characteristic status, demographic factors, health condition, health insurance coverage rate and the development and responsiveness of health system.

Conclusion

Results from this study show that the private health facility has not been a choice for a majority of the population in Vietnam, especially for inpatient care. The study aimed at identifying the predictors of choice pattern of the households in Vietnam towards public and private health care utilization. Our findings contribute to the existing field of research on the determinants of public and private health care utilization in the context of mixed health system of Vietnam in several ways. It shows that health insurance participation status, severe illness status, wealth variables strongly influence the choice of public or private health facilities among households in Vietnam. In addition, older age group, household composition, ethnicity, residence place, education all are important in decision making with respect to public and private health care utilization. The findings suggest that policymakers could draw attention to these factors while designing interventions and introducing policies to strengthen health system as well as improve health of inhabitants. Having health insurance is one of the strongest factors affecting selection of public health facility. This suggests that Vietnamese government should expand health insurance scheme to bring a large population under its coverage in order to improve access to healthcare, remove financial barriers and encourage them to seek healthcare services from public-run facilities, which are relatively less costly. The study highlights a high demand for public health facilities among households whose member experiences severe illness, and those with elderly people. These findings suggest that greater efforts are needed to ensure adequate public health infrastructure and its responsiveness with special attention to older population. Further, the study identifies the wealthier households are more likely to choose private health providers. In this regard, the policymakers should strengthen the role of private sector to better satisfy the needs of households who can afford to pay.

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