Research article

Factors affect health expenses of the households in Vietnam's North & South central coast

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ABSTRACT

The paper would like to define the factors which affect the health expense for the family household at the north and south central coast. Research methods: the topic incorporates the following two main approaches: (i) Descriptive statistics method: used to synthetic, analyze, compile data and make basic comments; (ii) Quantitative analysis using a multivariate linear regression model determines the factors that affect the level of household health expenditure. I find out the linear regression econometric model for the expense of the health of the north central & seashore Vietnam middle households: lnHExpc = 0,3589 + 0,299*lnExpc + 0,1149*lnEExpc + 1,624*Ethnic + 0,0122*Age – 0,000023*Age2 – 0,0931*Gender + 0,1917*Hhsize + 0,0828*CGender + 0,1666*Urban. Spending is one of the important daily issues of Vietnamese households. And the health expenses of the households is one of the hot title of Vietnam. This paper indicates the literature review of the north central & seashore Vietnam middle households health expenses. The next part is the methods of the research. The paper shows the research result of the north central & seashore Vietnam middle households health expenses. The paper also presents the discussion of the north central & seashore Vietnam middle households health expenditures. And then this paper displays the conclusion of the north central & seashore Vietnam middle households health expenses. This paper creates the model for the health expenditures. Especially, it is used for the north central & seashore Vietnam middle households health expenses. The data input to this paper model can produce the results. And this results can indicate a plenty of the suggestions. The policy plans can be created base on them. Because the health is important. Therefore, the health expenses is also important. So this paper has the very important value. Perhaps this paper can promote its importance to the world.

Key words: health, economics, living standards survey, VHLSS

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INTRODUCTION

Target: building the Model factors affect health expenses of the households in vietnam'sof north central & seashore vietnam middlesouth central coast.

Subjects: Comprised of General Statistics Office VHLSS 2010 data, the author uses STATA software to extract, handling of steps and running the Ordinary Least Square (OLS) regression model has resulted in the data of the study: Observations of the North Central Coast and the Central Coast are 8795 observations and the number of observations of the Stata software running the model as presented below is 6631 observations.

Result: The general model of the determinants of health expenditure of households in the NORTH and South Central Coast is as follows:

HExpc$_i$ = f (X$_h$, X$_c$, μ_i)

Inside, HExpc is applied logarithm function to become lnHExpc, lnHExpc is the logarithm of household health expenditures; X$_h$ are household characteristics that have a direct impact on household health

expenditures; X$_c$ are community elements (household living area) have a direct impact on household health expenditures; μ_i is a synthesis of all the unobservable characteristics of economics, household and community (living area) influence on total household health expenditure.

Applying the above model, the general regression model of the thesis is expressed as follows:

Model:

lnHExpc=β_0 + $\beta_1$lnExpc + $\beta_2$lnFExpc + $\beta_3$lnEExpc + β_4Urban + $\beta_5$hhsize + β_6Ethnic + β_7Gender + β_8Edu + β_9Age + β_{10}Age2 + β_{11}CGender + β_{12}Insure + u$_i$

The object of the study in the paper is the health care expenses, while the households in the central and northern coastal areas are the subjects of the study.

THE NECESSITY OF THE TOPIC

Health is an aspect of happiness, is an important component of human capital. Report by World Bank (1993) also mentioned that economic development

(spectacular poverty reduction development) and education is the focus for good health, etc.…

On the world, not only in the present phase but in every age, health always plays an important role in promoting social development, reduce poverty and is an important contributor to economic growth. Vietnam as well as other countries see health as the top national policy and always devotes special investment to the cause of health development. For individuals, a healthy foundation will give the individual an advantage in many aspects of life such as increasing opportunities in life, increase labor productivity, increased communication ability, increased technology access competence and that is the factor that affects the income level is higher and higher.

So it is because of the difficult life that people in the North Central and Central Coast spend more or less on health care than other regions and the proportion of health expenditures relative to other expenditures such as food, education, how are they? The household's interest in medical care for the child may be represented by the level of health expenditure of the child in the Vietnamese household. The factors about economic – society of the household affecting health care spending decisions is a matter of concern for consideration and analysis, it is expected to provide useful information for health policy makers to improve and develop the quality of health care. Article: *"factors affect health expenses of the households in vietnam'sof north central & seashore vietnam middlesouth central coast"* to help clarify the above problem.

SUBJECTS AND METHODOLOGY

Research subjects

Expense, households in the North Central Coast and Central Coast.

Research Methods

The topic incorporates the following two main approaches:

- Descriptive statistics method: used to synthetic, analyze, compile data and make basic comments.
- Quantitative analysis using a multivariate linear regression model determines the factors that affect the level of household health expenditure.

Methods for collecting VHLSS data

The survey applied the direct interview method. Investigators come to the household, meet household heads and related household members for interviews and write information on the household questionnaire. The leader of the survey team interviewed the commune leaders and relevant local officials and recorded the informations in the commune interview paper. To ensure the quality of information collected, The survey did not accept indirect survey or copied informations from other sources available on the interview sheet.

THE MODELS OF THEORETICAL RESEARCH:

Besides, other factors such as the age of the household head also affect the use of health services because age reflects perceived benefits and income. Poverty affects patients' ability to pay for medical care, so it reflects the use of health services quite clearly [1].

Houthakker (1957) examined three types of functions to study econometric models between expenditure on a specific commodity and total household expenditure on a linear basis, semi logarithm and dual logarithm. He noted that the linear function form is not suitable for reflecting the relationships in expenditure and has used the dual logarithm function developed from Engel's theorem theory. The mathematical model is as follows: [2]

$$\log Y_i = \alpha_i + \beta_i \log X1 + \gamma_i \log X2 + \varepsilon_i$$

Inside: Y_i is spending on the i th group, X_1 is the total expenditure, $X2$ is the number of members in the household, ε_i is the standard error, α_i, β_i and γ_i The coefficients are estimated from the regression model by the OLS method. And β_i & γ_i is the elasticity of total expenditure and household size when considered in relation to expenditure for i^{th} goods. [3,4]

In the 1998 research, Ndanshau has formulated a general estimation model for household expenditure as below: [5]

$$C_{ij} = f(TEX_j, A_j, HS_j, Ed_j)$$

Inside: C_i is the jth household's expenditure for i^{th} goods; TEX_j is the total expenditure of the jth household; A_j, Ed_j is the age and the education level of the jth household head, HS_j is the scale (number of household members) of the jth household. From the general model above, Ndanshau (1998) has been proposed to develop into two types of the models: linear and lin-log. [5]

The linear form is as follows:

$$C_i = \alpha_i + \beta_i TEX + \gamma_i A + \delta_i HS + \psi_i Ed + u_i$$

The lin - log format is as below:

$$C_i = \alpha_i + \beta_i \log TEX + \gamma_i \log A + \delta_i HS + \psi_i Ed + u_i$$

Follow-up study Pravin K. Trivedi (2002) deals with household health expenditure in Vietnam. Health spending was only one part of this study. The author

uses VHLSS 1997 – 1998 to analyze health expenditure for both individual and household level. [3]

Similarly, Reinhardt (2000) states that age is positively correlated for both health care costs and total expenditures. [4]

The next model we will consider is one of the simplest models of household expenditure by Samuelson (1956). Samuelson argues that "household income is always divided equally and fairly among household members". [6]

Model and research data

Econometric model of the research:

With the econometric models presented above, most use the form of a dual logarithm function to determine the relationship between the expenditure of a commodity and the total expenditure of the household. This relationship is shown by the logarithm of the value of the variable explaining total household expenditure and the dependent variable for a commodity. Besides, next to the impact of total spending, the authors also find it necessary to include more variables such as food expenditure, expenditures on education of the household, household size, education level of household head, age of household head, etc… to increase the explanation for the model. The variables added to the model can be expressed as logarithms depending on the characteristics of the data and the explanatory meaning of the variables.

The model is based on the distribution of both theory and specific situations in Vietnam, variable selection is also affected by the availability of data. Household health expenditure is affected by society, economics and characteristics of the demographic characteristics of the household. Therefore, the recommended model for the study is:

$HHEXP_i = f(X_h, X_c, \mu_i)$ {1}

- X_h : Vector of household characteristics may have a direct impact on household health expenditures.
- X_c : Vector of community factors can have a direct impact on household health expenditures.
- μ_i : Incorporates all the unobservable characteristics of economics, household and community impact on total household health expenditure.

Processing research results

Study data are processed by mathematical statistical methods and Stata software.

RESEARCH RESULTS

Description of household characteristics in the North Central Coast and Central Coast based on the 2010 VHLSS data

Education level of household head:

The education level of the household head shows which grade they have completed based on 12th grade system.

According to above statistics of Table 1, the average education level of the household head is 7,22. With this factor, we expect the education of the head of household to be correlated (+) with the household health expenditure.

1.1.1 Household size:

In this study, the cost of medical predictions of variable household size will make this cost increase.

According to statistics data of Table 2, we can see the most crowded family up to 12 members. On average, a household has about 5 members.

Overview of household health expenditures:

Average household expenditure:

Average household expenditure includes expenditures for education, health, food, meal, material goods, non-material goods and other expenses for life. According to statistics data of Table 3, the average household expenditure in the North Central Coast and Central Coast is 23431690 VND.

Medical Expenditure

Health care usually varies from country to country, groups and individuals, most are affected by conditions of economics – society and on-site health policies.

According to statistics data of Table 4, this is an unwanted expense of the household. This expenditure varies considerably among households.

Average food expenditure:

The share of food expenditure in total household expenditure is an index used to measure living standards high or low. The higher the ratio, the lower the standard of living and vice versa. Vietnam is a developing economy so this proportion has been declining in recent years but still at a high level. According to the General Statistics Office (2010), this proportion decreased from 56.7% in 2002 to 52.9% in 2010.

According to statistics data of Table 5, this indicator is calculated on average for household members. Average food expenditure has a large disparity between households.

Table 1: Education level of household head (unit: class)

Education level of household head	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	7.221831	3.638488	0	12

Source: From author calculations

Table 2: Household size (unit: people)

Household size	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	4.642752	1.657079	1	12

Source: From author calculations

Table 3: Average household expenditure (unit: 1.000 VND)

Average household expenditure	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	23431.69	86667.64	439.60	2754859

Source: From author calculations

Table 4: Health expenditure (unit: 1.000 VND)

Health expenditure	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	3201.998	7424.467	0	112500

Source: From author calculations

Table 5: Average household food expenditure (unit: 1.000 VND)

Average household food expenditure	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	506.0860	346.5523	92.8000	5527

Source: From author calculations

Educational expenditure of the household

Household expenditure on education is the portion of household budget used to pay for participation in learning activities, education and training of the members of the family include expenses such as direct costs, indirect costs and opportunity cost. The data in Table 6 shows the level of household expenditure on education.

According to descriptive statistics result, we find that some households do not spend on education (because the minimum value is zero). Educational expenditure among households is large.

Health expenditure by gender of household head

Health expenditure by gender of household head is shown in Table 7.

According to statistics data in Table 7, we can see the female-headed households spend less on health than male-headed households. The expenditure disparity for health among gender groups of household heads is not statistically significant.

Health expenditure by ethnicity of household head:

Kinh headed households are more spend money for health care expenditures than non-Kinh headed households (Table 8)

The results of the analysis of the difference in the median health expenditure of the two ethnic groups of the household head indicate that the head of the household is Kinh who spend health expenditure more than the household head of other ethnic groups (statistically significant at 1%). This further demonstrates that Kinh household heads are more interested in caring for their children's health than those of other ethnic groups.

Table 6: Educational expenditure of the household (unit: 1.000 VND)

Educational expenditure	Number of observations	Average value	Standard deviation	Minimum	Maximum
Total	8795	3665.019	8821.084	0	252010

Source: From author calculations

Table 7: Average expenditure on health by gender of household head (unit: 1.000 VND)

Health expenditure by gender of household head	Total
Female	3180.17800
Male	3207.16500
Difference (Female-Male)	-26.98768
Statistical significance level (t)	-0.13410

Source: From author calculations
Note: **, *** indicate statistically significant level of rank is 5% and 1%.
NS: Non-significance (no statistical significance).

Table 8: Health expenditure by ethnicity of household head (unit: 1.000 VND)

Health expenditure by ethnicity of household head	Total
Other ethnicity peoples	1045.8080
Kinh	3483.9270
Difference (others-Kinh)	-2438.1190
Statistical significance level (t)	-9.9026 ***

Source: From author calculations
Note: *** indicate statistically significant level is 1%.

Health expenditure by residence of household:

In urban areas, health expenditure of households is always higher than that of rural areas. The median spending on urban health in the North Central and Central Coastal regions is approximately more 3,670,000 VND and in the countryside is about more 3,018,000 VND. (Table 9).

The results of the analysis of average expenditure disparities for health between the two groups of living areas of households show: with a significance level of 1%, the difference in health expenditure in urban households is larger than in rural areas.

Quantitative Results of Factors Affecting Health Expenditures

The general model of the determinants of health expenditure of households in the north central middle and central coast is as follows:

$HExpc_i = f(X_h, X_c, \mu_i)$

Inside, HExpc is applied logarithm function to become lnHExpc, lnHExpc is the logarithm of household health expenditures; X_h are household characteristics that have a direct impact on household health expenditures; X_c are community elements (household living area) have a direct impact on household health expenditures; μ_i is a synthesis of all the unobservable characteristics of economics, household and community (living area) influence on total household health expenditure.

Applying the above model, the general regression model of the thesis is expressed as follows:

Model:

$lnHExpc = \beta_0 + \beta_1 lnExpc + \beta_2 lnFExpc + \beta_3 lnEExpc + \beta_4 Urban + \beta_5 hhsize + \beta_6 Ethinic + \beta_7 Gender + \beta_8 Edu + \beta_9 Age + \beta_{10} Age2 + \beta_{11} CGender + \beta_{12} Insure + u_i$ (4.1)

Test steps and regression

For good regression results using the Ordinary Least Squares (OLS), we need to consider whether data sets have a strong correlation between variables. The correlation matrix between variables in the research model is shown below. Afterthat, we split the dependent variable lnHExpc and run the matrix generation command to see the correlation coefficients between

Table 9: Health expenditure by residence of household (unit: 1.000 VND)

Health expenditure by residence of household	Total
Countryside	3018.8150
City	3670.0240
Difference (Countryside-City)	-651.2085
Statistical significance level (t)	-3.7012
	***

Source: From author calculations

Note: *** indicate statistically significant level is 1%.

the independent variables of the model. According to Professor Nguyen Trong Hoai et al (2010), with cross-data, when the correlation coefficient between the variables in the model is low (usually less than 0.8), there is no strong correlation between variables. With the above results, the correlation coefficient between variables is relatively low (highest correlation coefficient is 0.5358). This indicates that we are allowed to make regression estimates using Ordinary Least Squares (OLS).

Comprised of General Statistics Office VHLSS 2010 data, the author uses STATA software to extract, handling of steps and running the OLS regression model has resulted in the data of the study: Observations of the North Central Coast and the Central Coast are 8795 observations and the number of observations of the Stata software running the model as presented below is 6631 observations as Table 10.

Afterthat, we run the multi-collinearity test of the research model. The resultsshow that there is no multi-collinearity occurring in the model. Test results are presented in the annex of the dissertation.

With a 10% significance level, according to regression results of the research model, variables Napierian logarithm of food expenditure (lnFExpc), education (Edu) and insurance (Insure) have P-value more 0,1 so that these variables do not make sense to explain the model. To determine the suitable variables and explain the model, the author has used the regression run method Stepwise on the software STATA with the option of discarding the variables of the model whose P-value is bigger than 0.1, one by one. After processing and removing some variables, the remaining regression results are as follows:

From the results Table 11, we have the regression equation as follows:

lnHExpc = 0,3589 + 0,299*lnExpc + 0,1149*lnEExpc + 1,624*Ethinic + 0,0122*Age – 0,000023*Age2 – 0,0931*Gender + 0,1917*Hhsize + 0,0828*CGender + 0,1666*Urban (4.2)

DISCUSSION

Thus, the final model regression results remain the variables that affect the health expenditure of Vietnamese households, including: Average household expenditure, education expenditure, ethnicity of head of household, age and squared age of head of household, gender of household head, size of household, gender of the child and place of residence of the household. To assess the impact of these factors on household health expenditure, we consider the regression coefficients of the model.

Character

The characteristics of the inhabitants of the central coastal region: the nature of thrift due to coping with many risks, the high tolerance to the harsh environment, the characteristics of the Cham people are still many imprints in community life and activities.

Average household expenditure

The coefficient of the average household expenditure variable is +0,299, which means that this variable is positively related to the household health expenditure variable. In terms of other factors constant among households, if the average expenditure of households increases by 1% then spending on health increases by 0.299% and vice versa.

Education expenditure

Expenditure on education is positively related to household health expenditure by the coefficient of 0.1149. That is, in terms of other factors unchanged, when the household increases spending on education by 1%, it also increases spending on health by 0.1149%. These results show that health and education are two non-interchangeable goods, when income increases or average household expenditure increases, spending on education and health increases, but health care increases. increase much more slowly. This is the new point of the study. This shows that education is a special commodity.

Table 10: Regression model results

Dependent variable	LnHExpc	
Independent variable	Coefficient	P-value
lnExpc	0,2845	0,0000
LnFExpc	0,0755	0,2200
lnEExpc	0,1082	0,0000
Ethinic	1,6187	0,0000
Edu	0,0029	0,6690
Age	0,0123	0,0000
Age2	-0,0002	0,0000
Gender	-0,0956	0,0470
Hhsize	0,1973	0,0000
Cgender	0,0814	0,0460
Insure	-0,0187	0,6580
Urban	0,1357	0,0030
Constant	0,0769	0,8300
Number of observations	6631	
R-squared correction	0,2354	

Source: From author calculations

Table 11: Results of model regression after calibration

Dependent variable	LnHExpc	
Independent variable	Coefficient	P-value
lnExpc	0,299000	0,000000
lnEExpc	0,114900	0,000000
Ethinic	1,624000	0,000000
Age	0,012200	0,000000
Age2	-0,000023	0,000000
Gender	-0,093100	0,054000
Hhsize	0,191700	0,000000
Cgender	0,082800	0,043000
Urban	0,166600	0,000000
Constant	0,358900	0,138000
Number of observations	6631	
R-squared correction	0,235100	

Source: From author calculations

Ethnicity of household head

The results of the descriptive analysis in Chapter 3 show that health expenditure of households headed by the Kinh is always much higher than that of other ethnic groups.

The model results once again confirm the above statement is correct. In terms of other constant factors, health expenditure of households headed by Kinh is higher than that of other ethnic groups.

Gender of household head

The regression results show that male heads of household spend more on health than female heads while expectation is the opposite.

Age of head of household

The coefficient of the age variable of the head of household is +0.0123, which is positively related to health expenditure, meaning that if other factors remain unchanged, when the age of the head of household increases by 1, that household will increase spending on health by 0.0123%. However, the squared age variable of the head of the household has a coefficient of -0.00002, this shows that not for every increasing age that household increases spending on health, these two variables have the same relationship with age. of the head of household increases initially and when age increases too high, spending on health decreases by 0.002% for each additional age. This could be that there is no longer a health concern, though the expectation is the opposite. The age increases too high is 65.

Household size

The household size variable of the general model has a value of 0.1917, having a positive effect on health expenditure. In terms of other factors constant, when the household size increases by one person, the expenditure on health in that household will increase by 0.1917%.

This result is also true to the expectation that a household with one more member will increase health care costs.

Young gender

The gender of the child is also the variable that affects the health expenditure of the household.

The regression results show that parents spend more on health care for boys than girls, perhaps because the notion of men and women over girls causes families to care more about boys than babies. girls.

Place of residence of household

The variable of place of residence of the household has a positive coefficient. In terms of other factors being constant, households living in urban areas will spend more on health than households living in rural areas.

RESEARCH DATA

Data of this study are extracted from the 2010 Vietnamese Household Living Standards Survey (VHLSS 2010) conducted by the General Statistics Office. Data is extracted with the following items:

Section 2: Education.

Section 3: Health.

Section 4: Income

Section 5.6: Expenditures

Data explanation:

However, in the process of analyzing and processing the data, the author has filtered out some inadequate observations and the final data is extracted as follows for the North and South Central Coast:

Number of observations

Total 8795

In the 2010 VHLSS data, the author filtered out the North and South Central Coast with 8795 observations. Health spending has an important feature: unlike education, with education, most households with children of school age spend on education so that their children can get education. Health expenditure is characterized by the fact that during the 2010 VHLSS data collection there will be households with no disease (i.e. the probability of getting sick is zero $\rightarrow$ means spending on health is also 0). And the econometric model of the study is the formula: HHEXPi = f (Xh, Xc, μi) where lnHExpc is the logarithmic value of household health expenditure (i.e. when health expenditure is $0 \rightarrow \ln(0)$ = undefined, observations with indefinite lnHExpc are represented by a "") In the filtered VHLSS data set). Therefore, when running the regression using Stata software, the result table shows that the remaining number of observations is 6631 (that is, Stata software has removed 8795 - 6631 = 2164 observations with zero health spending). Therefore, the author makes the statistic to describe the number of observations in the North and South Central Coast is 8795. In the regression results table in chapter 4 and the Stata result table in the appendix, it will be 6,631 observations. The expenditure variables have many zeros so ln should be used for the model.

CONCLUSION

Therefore, the final regression results of the remaining variables affecting the health expenditure of Vietnamese households include: Average household expenditure, educational expenditures, ethnicity of household head, age and squared age of household head, gender of household head, household size, the gender of the children and living place of the household. To assess the impact of factors on household health expenditures, we consider the regression coefficients of the model.

PRACTICAL APPLICATION & POLICY IMPLICATIONS

Currently, in the industrialization and modernization of the country has been posing urgent requirements for the cause of public health care in general and public health care in particular, to create Vietnamese people are physically strong and mentally rich. To achieve this, we need to understand the factors that affect health spending, and then we come up with policies that affect those factors to achieve effective promotion policies. quality of health care.

In order for households to increase their spending on health care, the State should pay more attention to people's lives. The factor that has the strongest impact on health expenditure of Vietnamese households in general and households in the north and south central coast in particular is average expenditure. But average household expenditure is represented by household income. Therefore, if people want to increase spending on health, how can average household spending increase or income must increase. For this study area, people live on agriculture, forestry and fishery, so the State needs policies to support people to increase their income locally, such as forest land allocation, reduction or exemption of agricultural taxes. industry and provide financial support for fishermen to build large boats so that they can fish offshore. In addition, the State should maintain national target programs to reduce the gap between rich and poor in society, support poor households, policy families, remote areas….

Over the past years, our State has had many supportive policies for local people to develop local industries such as, for fisheries, the State has many policies to provide loans with low interest rates so that fishermen can build ships. large for offshore fishing, building seafood processing factories to increase the commercial value, contributing to creating jobs for local women. In forestry, the natural forest is almost no longer present, forest regeneration always

goes hand in hand with hunger eradication, poverty reduction, job creation for households living and exploiting forests. Policies such as land and forest allocation for local people to manage and support. Land is allocated to people to plant artificial forests for exploitation and to allocate forests for protection together with the State. For people living and working in urban areas, our State has also issued many policies to increase minimum wages. Specifically, it increased from VND 830,000 from 2010 to VND 1,050,000 in 2012, to VND 2,150,000 by 2015 for region 4 and VND 3,100,000 for zone 1 and is expected to increase further in the coming years. next.

It can be said that these policies almost increase people's income in order to improve the quality of life. However, in addition to increasing income for households, it is also necessary to have direct supportive policies for health such as exemptions and reductions in medical expenses, health care policies for the people …

In addition to improving the quality of life, these policies also want households to spend more on health care to improve their health. But in rural areas, facilities are still in short supply, so even if these households want to invest more in health care, it is also very difficult. The State needs to focus more resources on improving and improving facilities for health care. Currently, the Government has been implementing the national target program on building new rural areas nationwide in general and in the North and South Central Coast region in particular. The goal of this program is to develop the agricultural economy, increase the income of rural households and build infrastructure such as irrigation, concreted roads, … to shorten the gap between rural and urban areas. both in terms of income and geography.

In addition to the cost of medical examination and treatment, other health costs are quite new for people, especially households living in rural and mountainous areas such as insurance costs. Nowadays, health insurance for students is compulsory and should be partly supported by the State, but households in rural and mountainous areas have not yet fully participated. Therefore, the Government needs to widely propagate the benefits of purchasing health insurance and have policies to further support this insurance premium.

As for differences in health expenditure of households headed by the Kinh or ethnic minorities. Ethnic households are ethnic minorities, often living in rural and mountainous areas, so their incomes are often low. The above supportive policies have partly improved the income of these households. But limited awareness about the importance of health care

to bring high income in the future is quite a lot, so even if they are well-off in terms of income, they are less concerned with spending on health care. Therefore, propaganda and mobilization of people to raise awareness is an urgent task. Besides, it is necessary to build medical facilities in the villages so that people can access more easily.

In recent years, despite the tight budget, the Government has also built many medical facilities in the villages and dispatched health workers to take turns in village to serve people. In addition to taking care of the people's health, health workers are also assigned to each remote village, from house to house, to mobilize and raise awareness of the people.

Household size has had a positive impact on health expenditure so the Government should continue to mobilize people, especially people in rural and mountainous areas, on family planning. The government's two-child planning policy is enough for the Government to be thoroughly implemented to contribute to improving living standards.

Currently, in cities, most people will take care of a career, create a stable job, then have the idea of giving birth to children to create the best conditions for the children physically and mentally. As a result, these families often have increased spending on health care. However, in rural and mountainous areas, child marriage still makes life more difficult when the economy is not abundant. Therefore, in addition to the Government creating favorable conditions for economic development, it is advisable to propagate and advocate for relatives not to get married, marry early for their children when the economy does not ensure the material and spiritual life god later. Today, the law defines the marriage age for men as 20 and 18 for women as a demonstration of this concern.

Regarding the child's gender, it is necessary to eliminate the gender discrimination and not allow the sex selection to give birth when there are policies on family planning.

Besides, there is also a large proportion of self-treatment in households. Spending on self-treatment indicates that there is ineffective household health-seeking and use behavior. Self-treatment and self-treatment are so dangerous to health that we need to spread the importance of safe drug use, especially in difficult areas where information is scarce. So the Government should prohibit self-treatment and the use of prescription drugs without a prescription.

LIMITATIONS OF THE STUDY

The study uses the 2010 VHLSS data. Up to this point, this data set is old, the results of the study have little application in practice. Subsequent studies should use newer datasets for better future policy making.

The research results are inconsistent with the descriptive statistical results, there are many variables that are expected but not statistically significant in the regression model. In the following studies, it is necessary to find the cause of this problem so that the research model can be explained more.

The factor of technological advancement in medicine or in the healthcare sector should be included, which should be considered as an important factor affecting the expenditure function and herbal consumption habits (source of natural medicinal herb in place) is also a factor affecting health expenditure that needs to be considered).

The variable "Expenses for education" should be considered instead of "education level" because if calculating the cost structure for the health, the author needs to include costs of the other related fields people do it independently, but in this case, the perception and awareness of the health can be different depending on the level of the education of each individual).

LIST OF ABBREVITATIONS

VHLSS: Vietnam Household Living Standards Survey
PhD: Doctor of Philosophy
HCMC: Ho Chi Minh City
OLS: Ordinary least squares
VND: Viet Nam Dong
NS: Non-significance (no statistical significance).
VIF : Variance Inflation Factor
IM-test : information matrix test

CONFLICT OF INTEREST

The author declare that he have no conflicts of interest.

AUTHOR CONTRIBUTION

The entire content of the article is made by the author only.

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Bài nghiên cứu

Các nhân tố ảnh hưởng đến chi tiêu y tế của các hộ gia đình bắc trung bộ và duyên hải miền Trung Việt Nam

Vũ Trịnh Thế Quân[*]

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TÓM TẮT

Bài báo xin xác định các yếu tố ảnh hưởng đến chi tiêu y tế của hộ gia đình tại bắc trung bộ và duyên hải miền trung Việt Nam. Phương pháp nghiên cứu: đề tài kết hợp hai cách tiếp cận chính sau: (i) Phương pháp thống kê mô tả: dùng để tổng hợp, phân tích, biên soạn số liệu và đưa ra các nhận xét cơ bản; (ii) Phân tích định lượng sử dụng mô hình hồi quy tuyến tính đa biến xác định các yếu tố ảnh hưởng đến mức chi tiêu cho y tế của hộ gia đình. Tôi tìm ra mô hình kinh tế lượng hồi quy tuyến tính cho chi tiêu sức khỏe của các hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam: lnHExpc = 0,3589 + 0,299 * lnExpc + 0,1149 * lnEExpc + 1,624 * Ethinic + 0,0122 * Tuổi - 0,000023 * Độ tuổi bình phương - 0,0931 * Giới tính + 0,1917 * Hhsize + 0,0828 * CGender + 0,1666 * Thành thị. Chi tiêu là một trong những vấn đề quan trọng hàng ngày của các hộ gia đình Việt Nam, Và chi tiêu y tế của các hộ gia đình là một trong những đề tài quan trọng của Việt Nam. Bài báo này chỉ ra tổng quan nghiên cứu về chi tiêu y tế của các hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam. Phần tiếp theo là các phương pháp nghiên cứu. Bài báo cho thấy kết quả nghiên cứu về chi tiêu y tế của các hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam. Bài báo cũng trình bày thảo luận về chi tiêu cho y tế của các hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam. Và sau đó bài báo này đưa ra kết luận về chi tiêu y tế của các hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam. Bài báo này tạo ra mô hình cho các khoản chi tiêu cho y tế. Đặc biệt, nó được sử dụng cho chi tiêu y tế hộ gia đình bắc trung bộ và duyên hải miền trung Việt Nam. Dữ liệu đầu vào cho mô hình bài báo khoa học này có thể tạo ra kết quả. Và kết quả này có thể chỉ ra rất nhiều gợi ý. Các kế hoạch chính sách có thể được tạo ra dựa trên chúng. Vì sức khỏe là quan trọng. Do đó, các khoản chi cho sức khỏe cũng rất quan trọng. Vì vậy, bài báo khoa học này có giá trị rất quan trọng. Có lẽ bài báo khoa học này có thể quảng bá tầm quan trọng của nó với thế giới.

Từ khoá: sức khỏe, kinh tế, khảo sát mức sống, VHLSS

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