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Thu-Trang Vuong, Ha Nguyen and Quan Hoang Vuong

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Introduction

During a mid-2016 cabinet meeting, Vietnamese Prime Minister Nguyen Xuan Phuc said: "I believe [universal insurance coverage rates] should be raised above 91%" [1] although the amended Law of Health Insurance had come into effect for about 6 months, theoretically increasing universal coverage to 100% [2]. The Vietnamese government seems adamant about covering medical expenses, but the question remains as to whether they are taking the right course of actions [3].

Vietnam's health care system has undergone numerous reforms even before reunification in 1975, but health insurance was only introduced after 1986, when the country launched its *Doi Moi* reforms [3-4]. Most renovating efforts have been directed towards raising insurance coverage to 100% of expenditures for beneficiaries, and for a good cause. Financial hardships prevail where medical expenses are concerned, especially when the diseases are serious and require lengthy treatment [3-5]. In fact, a third of the poor households in debts in rural North Vietnam cite medical costs as the reason to their indebtedness [5]. There is evidence reporting the harsh reality that patients are at highest risks of destitution when being either uninsured or ineligible for adequate insurance [3-4].

There is no doubt that health insurance policies are a crucial matter, dealing with both economic and social challenges [3-6]. At present, the health insurance system in Vietnam gives patients little choice but to take part in compulsory health insurance scheme, with an option of buying commercial insurance packages, oftentimes offered by major life insurance firms licensed by the Vietnamese government [5-7]. In the current situation, the success of further health insurance reform remains to be seen as future challenges are overwhelming given the limited budget and precarious management system that frequently show weaknesses [7-8], rendering the implementation of the amended Health Insurance Law virtually impossible [2-3, 9-11].

The reality of Vietnamese health and health insurance sector gives rise to the concept of "better market design", [12] which in turn would need to rely on empirical evidence and learned insights on possibilities of universal coverage [13] and willingness/capacity to pay for health insurance, especially in the rural areas and informal sector [14-16].

This research attempts to answer two research questions (RQ1-RQ2) as follows:

> *How do residency status, socioeconomic status, total treatment cost, and actual insurance coverage impact patients' level of satisfaction towards health insurance services?* (RQ1)

> *Does there exist some "psychological thresholds" of treatment cost and insurance coverage that would mark a turn in patients' perception of health insurance services and if yes, what other factors come into play when calculating this threshold value?* (RQ2)

Answering these will more likely provide some useful implications, as discussed toward the end.

Materials and Methods

Materials / data
The research employs a data set containing 900 records randomly collected from a medical survey on Vietnamese patients conducted in five different provinces in Northern Vietnam–including major cities as Hanoi, Hai Phong, Quang Ninh–from August 2014 to June 2015. The survey team approached patients who actually used healthcare services, without knowing whether he/she actually held a health insurance policy. The questionnaire asks for such key information as their actual medical expenditures, (in)eligibility for insurance coverage, perceived dis/satisfaction about health insurance service, lengths of hospital stay, as well as some other standard information such as socioeconomic status (SES), and residency status (in relation to the location of the healthcare station that a corresponding patient receives treatment services), and so on.
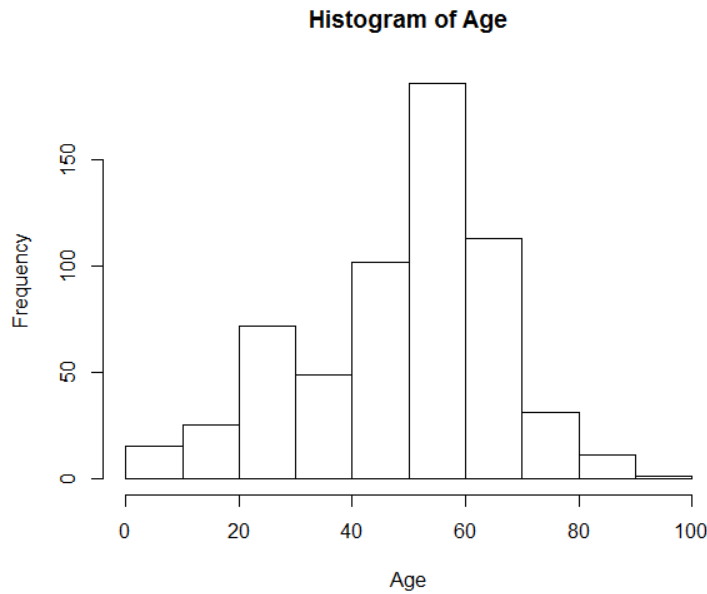
Histogram of Age

Figure 1. Histogram of patients' age

The subset containing 605 records for those who actually held at least a compulsory health insurance policy is used for analysis, i.e. 67.2% of the total data sample. This data subsample consists of 333 female patients and 272 male. Patients' age spans from 1 to 92, with a majority of 67% belonging to the 40-70 age bracket. A histogram of respondents' age is provided in Fig.1. It is also worth mentioning that a large portion of patients come from Hanoi and has a medium socioeconomic status.

The following categorical variables enter directly or indirectly into our data analysis:

  (i)   Level of patient satisfaction regarding health insurance services ("SatIns"), grouped into two categories: "satis" (higher level) and "unsat" (low to medium);
  (ii)   Patients' residency status, consisting of two categories: "yes" (with residency status in the region where the healthcare unit is located) and "no" (without residency);
  (iii)   Patient's socioeconomic status (SES), divided into: "Hi" (high), "Med" (medium) and "Lo" (low).

The structured presentation of the data subset following key variables used in subsequent modeling efforts is provided in Table 1, from which we learn that the majority of patients are not satisfied with health insurance services (>83%).

Table 1. Empirical distribution of patients by categorical values

Variables	Categories	Number of patients	Proportion (%)
"SatIns"	"satis"	101	16.69%
	"unsat"	504	83.31%
"Res"	"yes"	404	66.78%
	"no"	201	33.22%
"SES"	"Hi"	22	3.64%
	"Med"	532	87.93%
	"Lo"	51	8.43%

Two continuous variables that also enter our modeling attempts are: i) total medical expenditures incurred to a patient ("Spent"), measured in million of Vietnamese Dong (local currency; VND 1 million = US$47 using official exchange rate as of 2015 year end); and, ii) the actual medical expenditures covered by the health insurance system ("Pins"), measured against "Spent", thus with a value between [0,1]; see Table 2 for more details.

Table 2. Basic statistics of the continuous variables

Variable	Max	Min	Mean	SD
"Spent"	425.00	1.97	25.42	36.86
"Pins"	0.90	0.00	0.58	0.23

Empirical values of both variables fluctuate widely. It is worth observing the mean of "Pins" being <0.6, and clearly much lower than the Vietnamese government's target 100%, not to mention 33% of respondents holding no compulsory insurance.

Methods
The subsequent analysis employs logistic regression techniques involving both discrete and continuous predictor variables while the response variable is dichotomous. The functional form of these relations drawn upon these regressions have the generic form of Eq.1:

$$\ln\left(\frac{\pi(x)}{1-\pi(x)}\right) = \text{logit}(\pi) = \beta_0 + \beta_i X_i^K, i = 1, \dots, K \qquad \text{Eq. (1)}$$

In Eq.1, $\pi(x)$ represents the success probability, i.e. $Y_i = 1$; Y_i is the event we want to observe from the empirical data; β_0 is the intercept; and β_i coefficients associated with the ith predictor variable, X_i. $\pi(x)$ is given by: $\pi(x) = \frac{e^{(\beta_0 + \beta_1 X_1 + \dots + \beta_K X_K)}}{1 + e^{(\beta_0 + \beta_1 X_1 + \dots + \beta_K X_K)}}$. The standard null hypothesis is $\beta_0 = 0$, for each $i = 1, \dots, K$. In the case of X_i being a continuous variabe, if $\beta_i > 0$ then an increase of X_i will result in the increase of $\pi(x)$. The reverse is true when $\beta_i < 0$. Therefore, when X_i increase by 1 unit, the odds of Y increase by $\exp(\beta_i)$.

The likelihood ratio test statistic is employed for hypothesis testing using:

$$G^2 = -2\ln\left(\frac{l_0}{l_1}\right) = -2(L_0 - L_1)$$

where l_0 is the numerical value of the likelihood function computed from the observed data using under the null hypothesis estimate (π) and l_1 under the empirical data-based estimate $(\hat{\pi})$. This G^2 test statistic follows a X^2 distribution with K degrees of freedom (df). Actual estimations and technical treatments for the analysis are provided in [17-18].

Results

Results for RQ1:
To examine the influence of factors: residency status, socioeconomic status, cost of treatment and insurance coverage, on the patients' satisfaction towards heath insurance services, we employ "SatIns" as dependent variable and "Spent", "Pins", "Res" and "SES" as independent variables in a logistic regression model to compute the following results:

Table 3. Estimation results for impact of "Spent", "Pins", "Res" and "SES" on patients' level of satisfaction towards health insurance services

	intercept	"Spent"	"Pins"	"Res"	"SES"

	β_0	β_1	β_2	"yes" β_3	"Lo" β_4	"Med" β_5
logit(satis|unsat)	-0.969[a] [-1.65]	0.010** [2.74]	1.839** [2.82]	-1.916*** [-5.83]	-0.788 [-1.28]	-1.107* [-2.06]
	Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '[a]'; z-value in square brackets; baseline category for: "Res"="no"; and, "SES"="Hi". Residual deviance: 448.05 on 599 d.f.					

Most coefficients in Table 3 are statistically significant, with p-value<0.05, suggesting that the patients' satisfaction towards health insurance is considerably affected by their residency status, socioeconomic status, the cost of their treatment, and the actual coverage that health insurances provides them during medical care. Their empirical relations have the functional form of Eq. (RQ1):

$$\ln\left(\frac{\pi_{satis}}{\pi_{unsat}}\right) = -0.969 + 0.010 \times Spent + 1.839 \times Pins - 1.916 \times yesRes - 0.788 \times LoSES - 1.107 \times MedSES$$

Eq. (RQ1)

Positive coefficients for "Spent" and "Pins" appear to indicate that patients are more likely to feel satisfied with health insurance services when costs of treatment and/or insurance coverage go up. As β_1=0.010 (p<0.01) and β_2=1.839 (p<0.01), increasing one unit of "Pins" will boost probabilities of satisfaction much more significantly than does the same unit of increase in "Spent". In other words, insurance coverage is much more impactful than medical expenditures factor, in terms of improving patients satisfaction rate.

From the negative coefficient of category "yes" of variable "Res", it can be inferred that a patient with a residency status has a lower probability of satisfaction. More precisely, the odds of satisfaction of patients with residency status in the city is estimated to be exp(-1.916) = 0.147 times lower than that of patients who came from other regions. Moreover, the regression coefficients of "SES" in Eq.(RQ1.1) shows that medium to low socioeconomic status decreases the probability of satisfaction, particularly those of the medium status. These remarks all raise questions and give rise to the discussions at the end of this article.

From Eq.(RQ1), a conditional probability of a patient's satisfaction follows:

$$\pi_{satis} = \frac{e^{(-0.969+0.010 \times Spent+1.839 \times Pins-1.916 \times yesRes-0.788 \times LoSES-1.107 \times MedSES)}}{1 + e^{(-0.969+0.010 \times Spent+1.839 \times Pins-1.916 \times yesRes-0.788 \times LoSES-1.107 \times MedSES)}}$$

We take the example of a patient with residency status in the city, bearing a low SES, paying VND 50 million for medical treatment, 60% of which being covered by health insurance. Our prediction is that: the patient is 11.2% likely to feel satisfied with their health insurance. This is noteworthy as mean of insurance coverage is <60% (see Table 2); and yet, the patient is still much more inclined to feel unsatisfied. Perhaps, in the case of insurance coverage, more isn't always better as other factors come into play.

$$\pi_{satis} = \frac{e^{(-0.969+0.010 \times 50+1.839 \times 0.6-1.916-0.788)}}{1 + e^{(-0.969+0.010 \times 50+1.839 \times 0.6-1.916-0.788)}} = 0.112$$

With other residency and socioeconomic statuses, specific computations from Eq.(RQ1) are presented in Table 4.

Table 4. Calculations of probability of satisfaction by patients' residency status and SES

"SES" | "Res"	"Yes"	"No"
"Lo"	$\dfrac{e^{(-3.673+0.010\times Spent+1.839\times Pins)}}{1+e^{(-3.673+0.010\times Spent+1.839\times Pins)}}$	$\dfrac{e^{(-1.757+0.010\times Spent+1.839\times Pins)}}{1+e^{(-1.757+0.010\times Spent+1.839\times Pins)}}$
"Med"	$\dfrac{e^{(-3.992+0.010\times Spent+1.839\times Pins)}}{1+e^{(-3.992+0.010\times Spent+1.839\times Pins)}}$	$\dfrac{e^{(-2.076+0.010\times Spent+1.839\times Pins)}}{1+e^{(-2.076+0.010\times Spent+1.839\times Pins)}}$
"Hi"	$\dfrac{e^{(-2.885+0.010\times Spent+1.839\times Pins)}}{1+e^{(-2.885+0.010\times Spent+1.839\times Pins)}}$	$\dfrac{e^{(-0.969+0.010\times Spent+1.839\times Pins)}}{1+e^{(-0.969+0.010\times Spent+1.839\times Pins)}}$

Results for RQ2:

The (psychological) "thresholds" of treatment cost ("Spent") and insurance coverage ("Pins") is defined as the point where $\pi_{satis} = \pi_{unsat} = 50\%$ in each case, meaning that the patients are equally as probable to be satisfied or unsatisfied with health insurance services. All values other than the threshold will show $\pi_{satis} \neq \pi_{unsat}$. More precisely, at points where $\pi_{satis} < \pi_{unsat}$, patients are less likely to be satisfied with health insurance services. Likewise, when $\pi_{satis} < \pi_{unsat}$, patients tend to perceive insurance benefits more positively.

Possible threshold medical expenditures

The next logistic regression is performed with "Spent" and "Res" being predictor variables, and "SatIns" response. The actual estimations, provided in Appendix A, lead to relationship Eq.(RQ2.1).

$$\ln\left(\frac{\pi_{satis}}{\pi_{unsat}}\right) = -1.145 + 0.011 \times Spent - 1.559 \times yesRes \qquad \text{Eq. (RQ2.1)}$$

From Eq.(RQ2.1), we have the formula of probability of patients' satisfaction, taking into account their residency status and cost of treatment, as follows:

$$\pi_{satis} = \frac{e^{(-1.145+0.011\times Spent-1.559\times yesRes)}}{1+e^{(-1.145+0.011\times Spent-1.559\times yesRes)}}$$

The likelihood of satisfaction among patients with residency status is thus determined by:

$$\pi_{satis} = \frac{e^{(-2.704+0.011\times Spent)}}{1+e^{(-2.704+0.011\times Spent)}} \qquad \text{Eq. (RQ2.1.1)}$$

In the same vein, the probability of satisfaction for patients without residency status is given by:

$$\pi_{satis} = \frac{e^{(-1.145+0.011\times Spent)}}{1+e^{(-1.145+0.011\times Spent)}} \qquad \text{Eq. (RQ2.1.2)}$$

The threshold that affects patients' perception of insurance services is determined as "Spent" value where $\pi_{satis} = 50\%$. Substituting this value of π_{satis} into Eq.(RQ2.1.1):

$$\frac{e^{(-2.704+0.011\times Spent)}}{1+e^{(-2.704+0.011\times Spent)}} = 0.5$$

Therefore, the threshold treatment cost for patients with residency status is approximately VND 245.8 million. Similarly, by substituting $\pi_{satis} = 50\%$ into Eq.(RQ2.1.2), we compute the threshold value of "Spent" for patients without residency status.
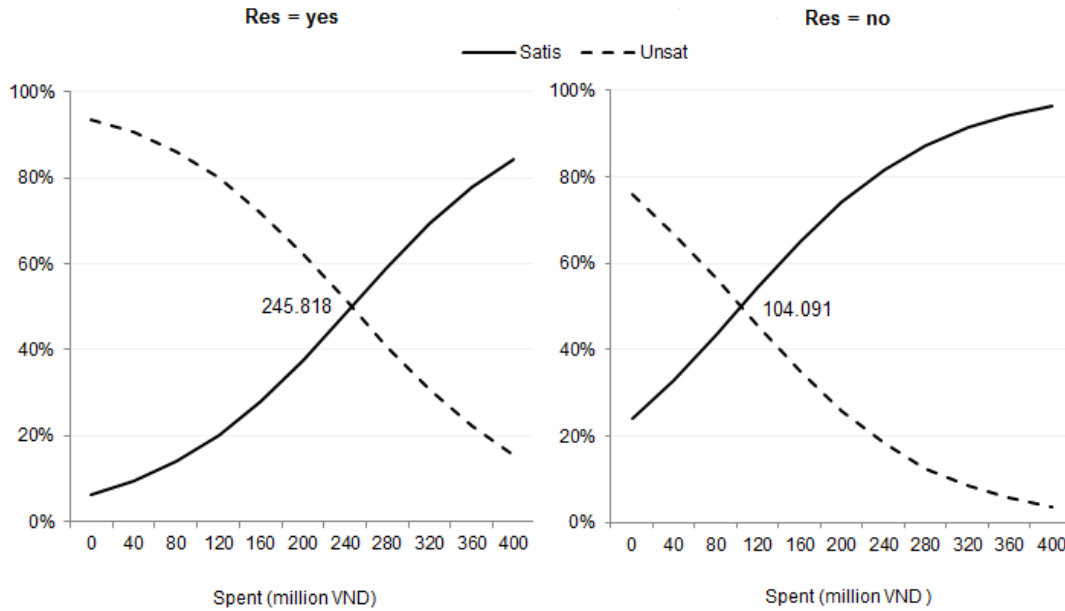
Figure 1. Probability of patients' dis/satisfaction towards health insurance conditional on residency status (data from Appendix B)

Fig.1 shows the probabilistic trends for dis/satisfaction of patients towards health insurance services. The two lines intersects at the threshold point of treatment cost as a factor affecting patients' dis/satisfaction towards insurance services.

As surprising as it may sound, the higher the expenditures are, the more likely the patients will find their insurance benefits to be satisfactory. However, in terms of absolute value, patients with a residency has a numerical threshold nearly 2.5 times as those without residency, specifically VND 255 million against VND 104 million.

Possible threshold insurance coverage rate

This investigation uses logistic regression, provided in Appendix C, with response variable "SatIns" and predictors "Pins", "Res" and "SES". In an effort to quantify the influence of insurance coverage as well as residency and SES on patients' perception, Eq.(RQ2.2) become useful.

$$\ln\left(\frac{\pi_{satis}}{\pi_{unsat}}\right) = -0.319 + 1.816 \times Pins - 2.281 \times yesRes - 0.833 \times LoSES$$
$$- 1.254 \times MedSES$$

Eq. (RQ2.2)

To compute the probabilities of satisfaction conditional on residency and SES, we substitute "Pins" values corresponding to different categories of "Res" and "SES" in the following formula:

$$\pi_{satis} = \frac{e^{(-0.319+1.816\times Pins-2.281\times yesRes-0.833\times LoSES-1.254\times MedSES)}}{1 + e^{(-0.319+1.816\times Pins-2.281\times yesRes-0.833\times LoSES-1.254\times MedSES)}}$$

A set of computed values against different conditions of residency and SES is given in Appendix D. Figs. 2-4, using Appendix E data, unveil some insights regarding patients' perception of health insurance services in different cases. In these figures, the lines representing the probability of satisfaction ("satis") tend to go upwards as insurance rates rise. The reverse trend can be observed in "unsat" lines (dissatisfaction). Where "satis" and "unsat" cross paths on each graph is the point of threshold, at which $\pi_{satis} = \pi_{unsat} = 50\%$.
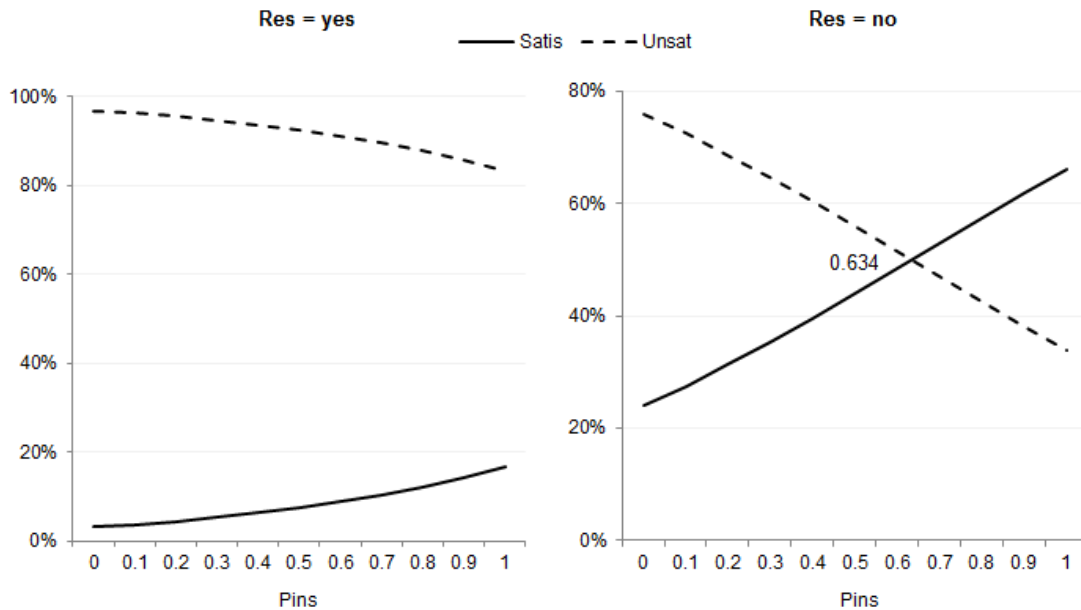
Figure 2. Probabilities of dis/satisfaction by residency status among patients with low SES

Fig.2(left) represents the perception of patients with a residency bearing a low SES. "Satis" and "unsatis" do not intersect at any value of "Pins". Remarkably, the same phenomenon occurs among other patients of medium or high SES; see Fig.3(left) and Fig.4(left).
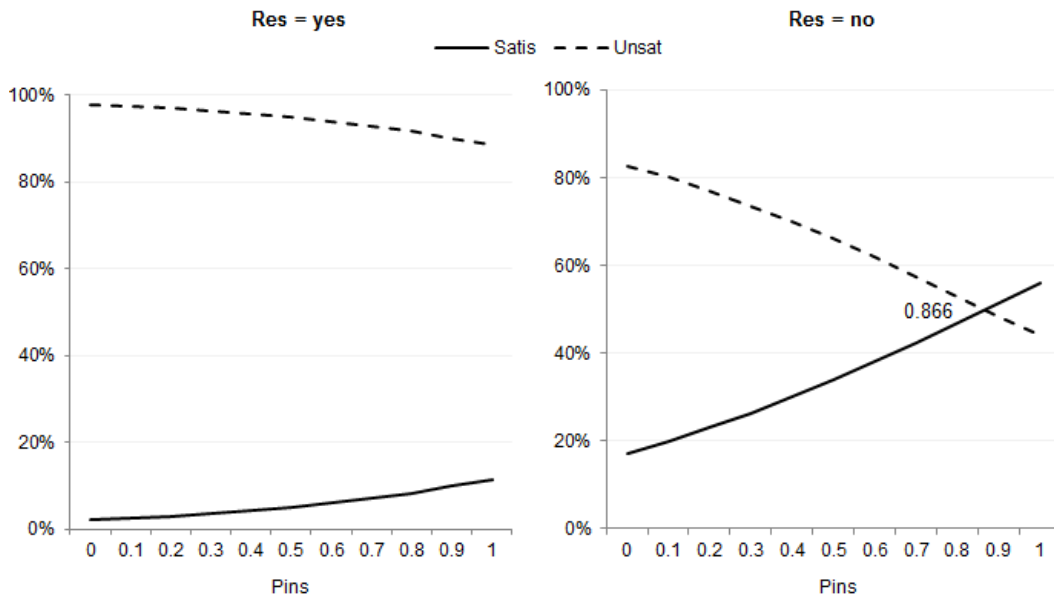

Figure 3. Probabilities of dis/satisfaction by residency status among medium SES patients
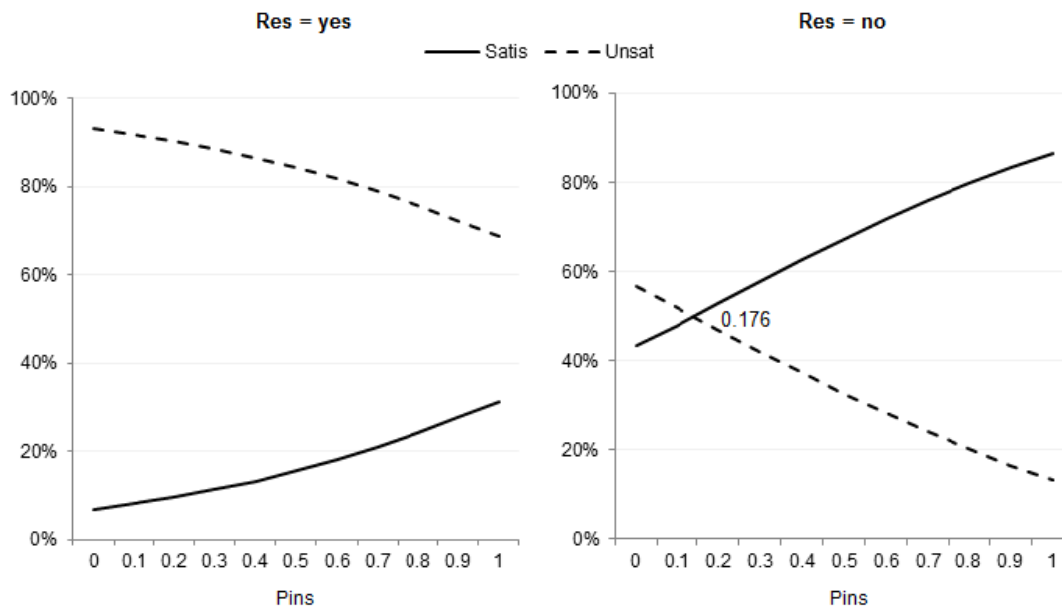
Figure 4. Probabilities of dis/satisfaction by residency status among higher SES patients

On the right hand sides of Figs.2-4, "satis" and "unsat" intersect at the threshold insurance coverage affecting patients' perception of health insurance. We learn that "Pins" thresholds for patients with low, medium and high socioeconomic status are 63.4%, 86.6% and 17.6%, respectively. This means that without a residency, a modest 17.6% insurance coverage is already enough to content a higher SES patient. But, medium-SES patients show a much higher threshold insurance rate: 86.6%.

Discussion

Attempts to model the probability of satisfaction among patients and determine a threshold value of medical expenditures and insurance coverage have shown that the key variables are all significant to patients' perception. Below, we offer some further insights and policy implications.

Firstly, a rise in insurance coverage will prompt an increase in probability of the patients' satisfaction towards health insurance services. In the first place, this might sound obvious, and Vietnamese policy-makers seemed to be thinking the same when setting the idealistic100% insurance rate. But reality shows that it is isn't possible for any citizen to exclusively rely on insurance to pay for their entire treatment – this can be seen at first glance in Table 2, where the maximum insurance coverage in real life cases only attains 90%, minimum coverage is null, and average coverage stays merely 60%. Due to possible frictions in the administrative system and insurance eligibility based on residency status, patients are often stuck with inadequate insurance coverage. In the end, they don't receive what they are promised to be given, and remain frustrated with the system.

Second, a possible explanation for patients to find higher medical expenditures to "help" on improving satisfaction rate is needed. This is probably is the psychology of the majority of patients: "It is still good to have money to spend on treatments". Notably, the threshold of treatment cost for patients with residency status to perceive health insurance services as more positive is VND 246 million (~US$12,000); this amount is huge as Vietnam's per capita GDP is only US$2,300 in 2016. Meanwhile, at less than half that cost, patients from other regions who come to the city/province for medical treatment already start to content themselves with health insurance services. This shows a large gap in standards between patients of different SES.
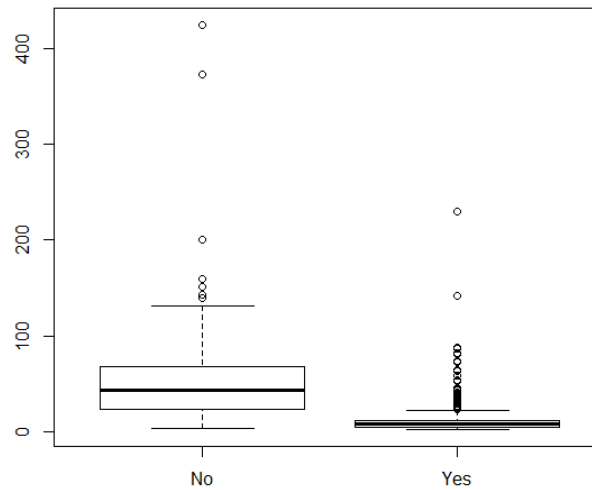
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Figure 5. Medical expenditures by residency status

For patients with residency status, there is no insurance coverage threshold for their satisfaction, even if the insurance rate is highest possible (90%). On the other end of the spectrum, we have high SES non-resident patients who show exceptional leniency towards health insurance services, being content with an insurance coverage as low as 17.6%. The vast difference between the various groups of patients again reinforces the population's heterogeneity, and plays key evidence to our later concluding remarks.

Regarding SES, those belonging in high classes tend to feel better about health insurance services, while the middle class is the hardest to please. In fact, patients with higher SES already have little to worry about financial burdens, so insurance coverage plays a lesser role in determining their level of satisfaction. Fig.6 shows that high-SES patients have the lowest average insurance coverage among all groups. We speculate that these people might care more for the actual medical services provided during treatment as well as how convenient the administrative procedure is. In stark contrast with high-classed patients, the middle class is extremely critical towards health insurance services, as the threshold is an impossible 85%.

Third, an immediate policy implication follows. From the above remarks, we learn that efforts to raise satisfaction for both of these classes by raising insurance coverage would be unlikely to pay off. This leaves us with the most vulnerable group, i.e. poor, non-resident patients, as a target group if the government and health system want to promote the value of compulsory insurance policies. As the threshold rate is a little >63%, reducing vulnerability of this group of patients is most feasible and least costly, while having far-reaching effect as far as health policies are concerned.
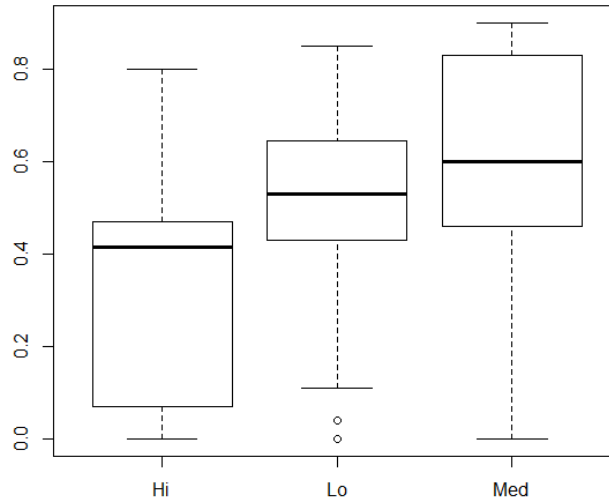
Figure 6. Insurance coverage by SES

Finally, the current health insurance system lacks options and becomes rigid given the observed heterogeneity of the population. Therefore, it would be more beneficial if policy makers, instead of promising an unattainable universal coverage, target the vulnerable and build more diverse insurance schemes to accommodate their needs, such as micro-health insurance [20]. This can be done by lowering general costs – which would be a long way to go – and modifying health insurance policies – which is a more feasible measure, in shorter terms. As insurance policies need to stay balanced between covering patients' expenses and keeping the fund stable, higher coverage doesn't necessarily mean better policies; rather, the amount should be optimal [21-22]. The threshold values of insurance coverage that we have determined through our analysis are expected to serve as a reference point for future policy making.

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Appendixes

Appendix A. Estimated impacts of treatment cost and residency status on patients' level of satisfaction towards health insurance services

	intercept	"Spent"	"Res"
			"yes"
	β_0	β_1	β_2
logit(satis|unsat)	-1.145[***] [-4.831]	0.011[**] [3.019]	-1.559[***] [-5.635]
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1; z-value in square brackets; baseline category for: "Res": "no"; Residual deviance: 459.889 on 602 d.f.			

Appendix B. A few probabilities of patients' satisfaction and dissatisfaction with health insurance, calculated using Eq.(RQ2.1.1) and Eq.(RQ2.1.2)

"SatIns"|"Spent"		0	40	80	120	160	200	240	280	320	360	400
"Res"="Yes"	"Satis"	0.063	0.094	0.139	0.200	0.280	0.377	0.484	0.593	0.693	0.778	0.845
	"Unsat"	0.937	0.906	0.861	0.800	0.720	0.623	0.516	0.407	0.307	0.222	0.155
"Res"="No"	"Satis"	0.241	0.331	0.434	0.544	0.649	0.742	0.817	0.874	0.915	0.943	0.963
	"Unsat"	0.759	0.669	0.566	0.456	0.351	0.258	0.183	0.126	0.085	0.057	0.037

Appendix C. Estimates of impact of insurance coverage, residency status and socioeconomic status on patients' level of satisfaction with health insurance services

	intercept	"Pins"	"Res"	"SES"	
			"yes"	"Lo"	"Med"
	β_0	β_1	β_2	β_3	β_4
logit(satis|unsat)	-0.319 [-0.599]	1.816[**] [2.829]	-2.281[***] [-7.548]	-0.833 [-1.359]	-1.254[*] [-2.352]
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1; z-value in square brackets; baseline category for: "Res": "no"; and, "SES": "Hi". Residual deviance: 457.38 on 600 d.f.					

Appendix D. Formulas to calculate the probability of satisfaction towards insurance services in varying conditions of residency status and socioeconomic status

(Res,SES)	Formulae	
(yes,Lo)	$$\pi_{satis} = \frac{e^{(-3.433+1.816\times Pins)}}{1 + e^{(-3.433+1.816\times Pins)}}$$	Eq.(RQ2.2.1)

(yes,Med)	$\pi_{satis} = \dfrac{e^{(-3.854+1.816\times Pins)}}{1 + e^{(-3.854+1.816\times Pins)}}$	Eq.(RQ2.2.2)
(yes,Hi)	$\pi_{satis} = \dfrac{e^{(-2.600+1.816\times Pins)}}{1 + e^{(-2.600+1.816\times Pins)}}$	Eq.(RQ2.2.3)
(no,Lo)	$\pi_{satis} = \dfrac{e^{(-1.152+1.816\times Pins)}}{1 + e^{(-1.152+1.816\times Pins)}}$	Eq.(RQ2.2.4)
(no,Med)	$\pi_{satis} = \dfrac{e^{(-1.573+1.816\times Pins)}}{1 + e^{(-1.573+1.816\times Pins)}}$	Eq.(RQ2.2.5)
(no,Hi)	$\pi_{satis} = \dfrac{e^{(-0.319+1.816\times Pins)}}{1 + e^{(-0.319+1.816\times Pins)}}$	Eq.(RQ2.2.6)

Appendix E: Probabilities of satisfaction and dissatisfaction towards health insurance services based on insurance coverage in varying conditions of residency status and socioeconomic status, calculated using formulas from Appendix D.

Fig	"SES"	"SatIns"	"Pins"	0	0.2	0.4	0.6	0.8	1
Fig.2	"Lo"	"Res"="Yes"	"Satis"	0.031	0.044	0.063	0.088	0.121	0.166
			"Unsat"	0.969	0.956	0.937	0.912	0.879	0.834
		"Res"="No"	"Satis"	0.240	0.312	0.395	0.484	0.575	0.660
			"Unsat"	0.760	0.688	0.605	0.516	0.425	0.340
Fig.3	"Med"	"Res"="Yes"	"Satis"	0.021	0.030	0.042	0.059	0.083	0.115
			"Unsat"	0.979	0.970	0.958	0.941	0.917	0.885
		"Res"="No"	"Satis"	0.172	0.230	0.300	0.381	0.470	0.560
			"Unsat"	0.828	0.770	0.700	0.619	0.530	0.440
Fig.4	"Hi"	"Res"="Yes"	"Satis"	0.069	0.096	0.133	0.181	0.241	0.313
			"Unsat"	0.931	0.904	0.867	0.819	0.759	0.687
		"Res"="No"	"Satis"	0.434	0.530	0.627	0.718	0.799	0.866
			"Unsat"	0.566	0.470	0.373	0.282	0.201	0.134