

## Research Article

# Increasing HIV-Infected Patients' Readiness for Social Health Insurance to Cover Partial Antiretroviral Therapy Fee in Vietnam

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### Abstract

**Background:** HIV response in low and middle-income countries has been largely funded by international donors and governments. Currently, international funds were declined by almost 13% between 2014 and 2015. Vietnam Ministry of Health has applied this approach with health insurance as a co-payment mechanism with patients to cover Antiretroviral Therapy fee when international funds will be phased out completely by the end of year 2018.

**Study Objectives:** Our study aimed to assess the social health insurance coverage proportion after the consultancy program provided by nurses and describe factors influencing the patients' readiness in order to accelerate this policy in Vietnam.

**Study Method:** Cross sectional study with designed questionnaire on 569 patients under ART for social health insurance readiness at Bach Mai outpatient clinic.

**Results:** Of 569 selected patients, the proportion of having social health insurance card was 87.8%, of pending 4.7%, of unaffords ability 7.5%. The pending was assumed as having social health insurance card, the patient's readiness for social health insurance card was increased from 72% to 92.5% after consultancy program. Patients who do not work for companies have higher rate of not having social health insurance card compare to patients working for companies (8.6% vs. 1.4%). Patients with "under high school" education level have higher rate of not having social health insurance card compare to patients with "high school & above" (9 % vs. 2.6%).

**Conclusion:** Consultancy program provided by nurses helps to increase HIV-infected patients' readiness for social health insurance. The two key factors associated to patient's readiness were job kinds relevant to optional / volunteer social health insurance and "Under High School" education level. The consultancy program should be done frequently to keep patients attached to treatment and overcome two associated factors to the readiness for social health insurance.

**Keywords:** ART; HIV/AIDS; Patient's Readiness; Social Health Insurance; Vietnam

### Abbreviations

ART : Antiretroviral Therapy  
MOH : Ministry of Health

OPC : Out Patient Clinic  
SHI : Social Health Insurance  
UHC : Universal Health Coverage

### Introduction

HIV response in low and middle-income countries has been

largely funded by international donors and governments. Currently, international funds were declined by almost 13% between 2014 and 2015. Therefore, these countries are now beginning to lead on efforts to tackle the HIV epidemic by using their national budgets [1]. In the context of rapid socio-economic changes, the complexity of new and re-occurring diseases and limited resources for healthcare, Universal Health Coverage (UHC) through Social Health Insurance (SHI) has been being used in many developed and developing countries in order to meet people's health care needs. Vietnam Ministry of Health (MOH) has applied this approach with HI as a co-payment mechanism with patients to cover Antiretroviral Therapy (ART) fee when international funds will be phased out completely by the end of year 2018. This approach fosters ownership and accountability in the implementation of the national HIV response and increasing its sustainability.

A survey from 8 Vietnamese hospital and health centers in 2013, less than 50% patients reported having a SHI card. There were 93% patients willing to pay for a SHI if ART is covered by SHI in future [2]. Implementation SHI policy for HIV patients may face many challenges, the most difficult one is the low SHI coverage proportion in Vietnamese HIV-positive people 30% in average, but from 15% to 55% depending on regions depending on the awareness of SHI benefits [3], and 72% at Bach Mai Out-Patient Clinic (OPC)-reported in August 2016.

Bach Mai OPC had run SHI consultancy program for all 1,500 HIV patients in 3 months (from September to December 2016). Our study aimed to assess the SHI coverage proportion after the consultancy program provided by nurses and describe factors influencing the patients' readiness in order to accelerate this policy in Vietnam.

## Method

### Study Setting

Bach Mai OPC is located in Hanoi capital of Vietnam. It is a leading clinic in managing HIV/AIDS treatment for HIV-infected adults in Northern region of Vietnam and it advocates for MoH in many health policies with evidence-based studies.

### Study Population

1500 HIV-infected patients under ART at Bach Mai OPC were consulted for SHI at health check-up from September to December 2016. 569 patients were recruited randomly with convenient method for cross sectional study on 3 to 7 April 2017 for assessment with a designed questionnaire (see Appendix 1).

1. Patient's ID		
2. Patient's Sex	1. <input type="checkbox"/> Male	2. <input type="checkbox"/> Female
3. Patient's Age		
4. Patient's Job kind	1. <input type="checkbox"/> Company	2. <input type="checkbox"/> Non-company

5. Education level	1. <input type="checkbox"/> Under High School	2. <input type="checkbox"/> High School & above
6. Residence	1. <input type="checkbox"/> Urban (Hanoi)	2. <input type="checkbox"/> Rural (province)
7. Income monthly	1. <input type="checkbox"/> Below Standard (2,100,000 VND)	2. <input type="checkbox"/> Standard & above
8. SHI card availability	1. <input type="checkbox"/> Yes	2. <input type="checkbox"/> No
9. Using SHI card concerns		
Disclosure	1. <input type="checkbox"/> Yes	2. <input type="checkbox"/> No
Stigma	1. <input type="checkbox"/> Yes	2. <input type="checkbox"/> No
Service Quality	1. <input type="checkbox"/> Yes	2. <input type="checkbox"/> No

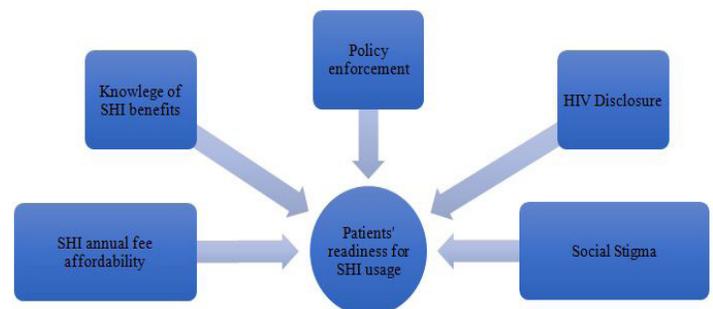
**Appendix 1:** Interview Questionnaire.

SHI consultancy content comprises the following content:

- Notice national plan about SHI co-payment mechanism for ART fee in future.
- Possible rate of co-payment for ART fee for SHI and patients.
- SHI annual fee and advantages.
- SHI referral procedure.

### Theoretical Model of Factors Impacting to HIV-infected Patient's Readiness for SHI

HIV-infected patients' readiness for SHI means that they paid for SHI card and they are willing to use SHI in co-payment ART fee. Our hypothesis of factors associated to patients' readiness as in (Figure 1).



**Figure 1:** Theoretical Model of Factors Related to Patient's Readiness for SHI Usage.

This model was developed by basing on previous reports in implementing SHI for HIV patients and for general population in Vietnam. The HI coverage portion in population was about 77% and lower in HIV patients (30%) due to the unaffordability SHI annual fee and unawareness of SHI benefits [4]. OPC in Vietnam have been located in a separated place at hospitals to reduce the contact to HIV non-infected patients due to persistent high social stigma in Vietnam society [5]. National policies have their own power impacting to all patients; it is called "Policy enforcement".

Another aspect that patients may concern is the SHI referral procedure, which may cause HIV disclosure when paperwork is processed by unknown and/or general health staffs.

## Data Analysis

Patients' SHI card availability and factors (job, education level, residence, and income and socio-medical concerns) were collected. Descriptive statistics were done with STATA 12.0, including cross-tabulations of key factors and the patient's readiness.

## Results

### Increased SHI Coverage Proportion at Bach Mai OPC after SHI Consultancy Program

Of 569 selected patients, the proportion of having SHI card was 87.8%, of pending 4.7%, of unaffords ability 7.5%. The pending was assumed as having SHI card, the patient's readiness for SHI card was increased from 72% to 92.5% after SHI consultancy program.

### Factors Related to Patient's Readiness in Having SHI for their ART in Future

Patients' characteristics are described in table 1. Briefly, 63.1% was male and 99.7% was adults who have income monthly for daily life. Most of patients at Bach Mai OPC come from rural areas (64%).

Characteristics		Number	Percentage (%)
Sex	Male	359	63.1
	Female	210	36.9
Age	Adolescent (≤19)	2	0.3
	Adult (≥20)	567	99.7
Job	Company	69	12.1
	Non-company	500	87.9
Education level	Under High school	455	79.9
	High school & above	114	20.1
Residence	Urban	205	36
	Rural	364	64
Income*	Below standard	328	57.6
	Standard & above	241	42.4
Disclosure	Afraid	10	1.8
	Not afraid	559	98.2
Stigma	Afraid	165	29

	Not afraid	404	71
Service quality	Afraid	41	7.2
	Not afraid	528	92.8
Note: (*) Standard salary 2,100,000 VND/month (~95.4 USD)-current salary issued by Vietnam Government in 2017.			

**Table 1:** Patient's Characteristics in Relation to their Readiness for SHI.

Patients' factors related to their readiness for SHI card are described in table 2, patients with and without SHI card were tested for relevant factors. Only 2 factors (job kind, education level) impact significantly to the difference between patient groups with  $p < 0.05$ .

		Having SHI card (n=525)	Not having SHI card (n=44)	p-value
Job	Company	68 (98.6%)	1 (1.4%)	0.03**
	Non-company	457 (91.4%)	43 (8.6%)	
Education level	Under High school	414 (91%)	41 (9%)	0.02**
	High school & above	111 (97.4%)	3 (2.6%)	
Residence	Urban	185 (90.2%)	20 (9.8%)	0.18*
	Rural	340 (93.4%)	24 (6.6%)	
Income	Below standard	301 (91.8%)	27 (8.2%)	0.6*
	Standard & above	224 (92.9%)	17 (7.1%)	
Disclosure	Afraid	8 (80%)	2 (20%)	0.1*
	Not afraid	517 (92.5%)	42 (7.5%)	
Stigma	Afraid	151 (91.5%)	14 (8.5%)	0.6*
	Not afraid	374 (92.6%)	30 (7.4%)	
Service quality	Afraid	39 (95.1%)	2 (4.9%)	0.5*
	Not afraid	486 (92.1%)	42 (7.9%)	
Note: (*) Chi-square test ;(**) Fisher's exact (an expected frequency of five or less).				

**Table 2:** Patient's Factors in Relation to their Readiness for SHI.

Patients who do not work for companies have higher rate of not having SHI card compare to patients working for companies (8.6% vs. 1.4%). Patients with "under high school" education level have higher rate of not having SHI card compare to patients with "high school & above" (9% vs. 2.6%).

## Discussion

The SHI consultancy program increased extraordinarily the proportion of patient having SHI card from 72% (before) to 92.5%

(after). The proportion of having SHI card in 2017 is concordance with the previous study in 2014 with 93% patients willing to pay for a SHI if ART is covered by SHI in future [2]. It means that patients are now paying for SHI card when the SHI policy for ART fee is going to launch in Vietnam.

Even after many years of ART, 29% HIV-infected patients still fear stigma. Stigma does not only exist in society, but also in hospitals; it comes from general health staffs, who do not work in HIV domain. This was stated from a study in Vietnam with at baseline (n = 795), reported stigma was substantial, about half of hospital workers indicated fear of casually touching people living with HIV, and felt HIV was a punishment for bad behavior [6]. However, in our study, disclosure, stigma and service quality have no impact on patient's decision in buying SHI card when comparing between 2 groups (having / not having SHI card) with  $p > 0.05$ . This means that patients want to keep their ART continuous in future with SHI co-payment regardless their fear of disclosure, stigma and service quality.

In Vietnam, SHI is obligatory for all who work for any companies, but it is optional for people who work for non-companies (self-employed, free-lancer, small vendors, farmers...). Optional SHI for non-company people causes the low coverage portion nation-wide (about 77%) and lower in HIV patients (30%) [4]. In our study, 87.9% patients do not work for companies so the job factors impact significantly to the SHI card availability ( $p = 0.03$ ).

The "literacy gap for health insurance" was considered as a reason for the higher rate of not having insurance in Bangladesh [7]. Patients' with education level "under high school" has higher rate of not having SHI card 9% compared to patients' with "High school & above" 2.6%.

## Study Limitation

The consultancy programs for all 1500 HIV-infected patients under ART at Bach Mai OPC were performed in September to December 2016 without collecting baseline data as in this survey. The only available data was the proportion of SHI before the consultancy program. With limited budget and time, only 569 patients were recruited for the survey. The real proportion of SHI card could not be collected during the time of study, and it is hardly to

determine exactly due to the different expire date of SHI card with different time of purchase.

## Conclusion

Social Health Insurance consultancy program provided by nurses helps to increase HIV-infected patients' readiness to obtain it. The two key factors associated to patient's readiness for SHI were job kinds relevant to optional / volunteer social health insurance and "under high school" education level. The consultancy program should be done frequently to keep patients attached to treatment and overcome two associated factors to the patient's readiness for social health insurance.

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