

**HIV-related Misconceptions and Stigma in Vietnam:
Levels and Determinants**

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Abstract

Stigma is one of the biggest obstacles in HIV prevention and control in Vietnam. Many people do not seek HIV test because they fear of a positive test result and a possible resulting stigmatization. Fear of being stigmatized also discourages test result disclosure, which may in turn negatively affect HIV transmission prevention. Given the data from Vietnam 2005 Population and AIDS Indicator Survey, with a nationally representative sample of men and women aged 15-49, this paper examines levels and determinants of HIV-related misconception and stigma. Preliminary analysis shows that significant levels of misconceptions and stigma exist. Less than half of respondents could reject all three misconceptions. A similar proportion has stigmatizing attitude. Multivariate analysis shows that misconceptions are significantly associated with stigma after controlling for socio-demographic characteristics. Respondents who are younger, male, urban residents, better educated, from wealthier households, and have tested for HIV are less likely to stigmatize HIV-infected people.

Background

The first case of HIV in Vietnam was detected in December 1990. By 2005, the HIV epidemic has spread out all of 64 provinces and cities of the countries, with 103,084 cases of infected case have been reported, of which 17,124 had progressed to AIDS and 9,900 people had died (*UNAIDS, 2006; WHO, 2007*). The Ministry of Health of Vietnam estimated that every day there would be 100 new people infected with HIV and by the end of 2005, the real number of HIV infected cases would have been 280,000 (*Ministry of Health, 2005*). Though Vietnam's HIV epidemic is still considered as concentrated in injecting drug users (IDU), sexual transmission of the virus has actually been on the rise. Injecting drug users comprised of 50-60% of the people reported to be living with HIV/AIDS in 2005 compared with 70%-80% in early 1990s (*MOH of Vietnam, 2005*). Due to the increased heterosexual transmission, the number of infected females has also been increasing each year (*MOH of Vietnam, 2005*).

According to UNAIDS, HIV/AIDS-related stigma and discrimination is a “process of devaluation” of people either living with or associated with HIV/AIDS (*UNAIDS, 2006*). HIV/AIDS-related stigma is the result of interaction between fears of contagion and disease. Fears of being stigmatized prevent people from using the HIV prevention, treatment, and care services in community. Many do not seek HIV test because they fear of a positive test result and the resulting possible social exclusion if their tests comes out positive. Stigma also negatively affects people’s willingness to disclose their positive test result. People living with HIV/AIDS reported that they felt isolated and discriminated against within the health care setting, in their work places as well as in their families and communities (*The Population Council, 2005*).

Although anecdotal evidence suggests that HIV/AIDS related stigma remains a major obstacle for HIV/AIDS prevention and control in Vietnam, only few qualitative studies have been conducted on this topic. Since the HIV epidemic was initially concentrated among drug users and commercial sex workers - both are illegal in Vietnam, the government of Vietnam has carried out numerous campaigns aimed to reduce drug use and prostitution. Unfortunately, such programs have many unintended consequences against those vulnerable to HIV/AIDS infection, including stigmatization (*H. Khuat et al, 2004*). Bill Clinton, in his visit to Vietnam as Chair of The Clinton Foundation in December 2006, had urged young Vietnamese to talk more about HIV and AIDS to reduce fear and ignorance of the disease and to discourage discrimination (*Reuters, 2006*).

In one qualitative study, Khuat found that the root causes of stigma in Vietnam were people’s fear of casual transmission and moral judgments from society against those infected as having bad and evil behavior and lifestyle (*Khuat et al, 2004*). Stigma was further escalated by media and IEC campaigns which portray HIV with fearful negative image. Study also found that misconception is prevalent. Many respondents said that the IEC message was ambiguous. For example, one message was: “HIV can be transmitted through blood” which may give people different understanding on the term “through

blood”. “Through blood” is too general, which makes people over cautious and uncertain that everything related to blood carries a risk of HIV infection.

Khuat’s study also found that, in Vietnam stigma was trapped in a cycle: drug use and prostitution are considered social evil, which leads to stigma. This is not only a belief of lay people but the government policies also states that drug use and prostitution are the reasons for spreading HIV. As a consequence, HIV is equaled to social evil. Many people think of HIV as a social evil, not a virus. The vast majority of reports or stories about HIV and AIDS published in newspapers and media have escalated the negative side of people living with HIV, driving vulnerable people underground and making the problem worse. (*Khuat et al, 2004*).

In the almost absence of studies on HIV-related stigma in Vietnam, this paper aims to examine the association between HIV misconception and stigma, their levels, and their individual- and community-level determinants.

Methodology

Data are from 2005 Vietnam Population and AIDS Indicator Survey, which includes a national representative sample of 13,996 men and women aged from 15 to 49. This is the first national AIDS indicators survey ever been conducted in Vietnam aiming to obtain information on sexual behavior, and knowledge, attitudes, and behavior related to HIV and AIDS. Two-stage cluster sampling was employed to obtain a representative sample.

Dependent variable is stigma as measured by asking 4 questions to see if the respondents: (1) would be willing to take care of a family member who has HIV/AIDS; (2) would buy vegetables from a HIV infected vendor; (3) would agree that an HIV infected person should be allowed to keep it secret; and (4) whether a HIV infected teacher should be allowed to teach. A person is considered to have stigma attitude if he/she said “No” in at least one of the above 4 questions, otherwise s/he is categorized as not having a stigma attitude.

The main independent variable of interest is misconception. This variable is constructed based on responses to three questions: whether healthy-looking people can have HIV; whether HIV could be transmitted through mosquito’s bites; and whether HIV could be transmitted by sharing foods with an HIV-infected person. Misconception is measured as 0, 1, 2 or 3 based on the number of positive response to these three questions.

Other independent variables that were also examined are knowledge of HIV/AIDS, gender, education level, marital status, residence, ever having tested for HIV, and household wealth index. Household wealth index was pre-constructed by Macro International based on the ownership of household items. Knowledge of HIV/AIDS was constructed based on awareness of three main ways of HIV prevention: abstinence, being faithful and condom use. Community level variables are also included. Education level,

wealth index, and ever tested variables are averaged by each cluster, excluding the index individual. These variables were treated as continuous in the regression model.

Bivariate analysis is used to determine the crude associations between independent variables and the outcome. Logistic regression is used to determine the effects of misconception on stigma, controlling for other independent variables. Regression model is estimated using Stata/SE version 9.2 as bellow:

$$\text{Logistic (stigma)} = \beta_0 + \beta_1 \text{ misconception} + \beta_2 * \text{knowledge} + \beta_3 * \text{sex} + \beta_4 * \text{education} + \beta_5 * \text{age} + \beta_6 * \text{marital-status} + \beta_7 * \text{wealth-index} + \beta_8 * \text{residence} + \beta_9 * \text{HIV-test} + \beta_{10} * \text{mean-education} + \beta_{11} * \text{mean-wealth} + \beta_{12} * \text{mean-ever-tested}.$$

Results

Results show a high level of stigmatizing attitude. Fifty percent of respondents said that a family member who had HIV was allowed to keep it secret. Five in ten women and four in ten men said that they would not buy vegetables from a vendor if they knew that that person was HIV-infected. And about 4 out of 10 respondents said that a healthy female teacher should not be allowed to teach at school if she was HIV positive. However, the vast majority of respondents said that they would be willing to care for their family member who had AIDS (96% for men and 93% for women). Viewing stigma as a composite variable which includes four above asked questions, almost half of respondents had at least one stigmatizing attitude. With regard to misconceptions, only one out of four respondents knew that HIV could not be transmitted by sharing food with a person who had HIV. Another 20% of respondents said that a healthy looking person could not have HIV. However, a much higher level, 35% of men and 44% of women still thought that HIV could be transmitted through mosquito's bites.

Table 1 shows variations in stigma attitude across most of the background characteristics. All independent variables were significantly associated with the outcome, except gender and residence. People with better education, from wealthier households, higher knowledge of HIV, being younger, and having had HIV tested were less likely to stigmatize. The independent variable of interest, misconception was positively associated with stigma (*Sig. at p < .001*).

Regarding relationship between stigma and misconception, Table 1 shows a high level of stigma ranging from 77 percent to 97 percent in which the more misconception a person had, the more likely s/he stigmatized those HIV-infected ($p < .001$). Nearly all 100% of those who had all three misconceptions also held stigma attitude. Similarly, knowledge of HIV prevention: abstinence, being faithful and using condoms correctly and consistently was also significantly and negatively associated with stigma. The more methods of HIV prevention a person knew, the less likely s/he would stigmatize HIV-infected people ($p < .001$). Among those who did not know any methods of HIV prevention, 98% of them expressed stigma attitude

Table 1: Bivariate relationship between stigma and background characteristics

<i>Variables</i>	<i>Distribution</i> (%)	<i>Stigma</i>		<i>p</i>
		No % (N)	Yes % (N)	
Misconception				<.001
No misconception	54.0	(22.7) 1512	(77.3) 5139	
One misconception	27.8	(15.0) 566	(85.0) 3217	
Two misconceptions	13.2	(6.9) 131	(93.1) 1788	
Three misconceptions	5.0	(2.3) 17	(97.1) 737	
Knowledge of HIV prevention (ABC)				<.001
Don't know any	2.3	(2.2) 7	(97.8) 318	
Know 1 methods	5.6	(9.9) 73	(90.1) 668	
Know 2 methods	28.0	(14.5) 589	(85.5) 3480	
Know 3 methods	64.1	(19.6) 1559	(80.4) 6,416	
Gender				>.10
Female	47.9	(13.95) 1746	(76.05) 5,543	
Male	52.1	(24.41) 1,637	(75.59) 5,070	
Age group				<.001
15-24	34.7	(24.3) 1,186	(75.7) 3,691	
25-39	39.5	(21.7) 1,210	(78.3) 4,357	
40-49	25.8	(20.2) 717	(79.8) 2,835	
Education				<.001
Primary or less	22.2	(25.6) 890	(74.4) 2,550	
Lower secondary	40.3	(19.7) 1,114	(80.3) 4,927	
Higher secondary	24.9	(23.7) 751	(76.3) 2,419	
Higher	12.6	(27.1) 368	(72.9) 987	
Marital status				<.001
Never married	34.5	(26.5) 1,281	3,551 (73.5)	
Married/together	62.6	(22.9) 2,002	6,756 (77.1)	
Divorced/separated	2.9	(24.6) 100	306 (75.4)	
Residence				>.10
Urban	33.6	(24.8) 1,164	(75.2) 3, 533	
Rural	66.4	(23.9) 2,219	(76.1) 7,080	
Wealth quintile				<.001
Lowest	16.8	(32.4) 762	(67.6) 1,591	
Second	16.1	(19.4) 436	(80.6) 1,811	
Middle	17.5	(20.3) 498	(79.7) 1,957	
Fourth	20.7	(22.1) 640	(77.9) 2,260	
Highest	28.9	(25.9) 1,047	(74.1) 2,994	
Ever tested for HIV				<.001
No	90.9	(17.9) 2,133	(82.1) 9,756	
Yes	9.1	(27.9) 331	(72.1) 857	

Multivariate analysis results in Table 2 show that stigma was significantly associated with levels of misconception. Those who had one, two, three misconception were respectively 1.3; 2.6 and 6.4 times more likely than those who had no misconception to have stigma attitude. On the other hand, people who know a method of HIV prevention was about 3 times less likely to have stigmatizing attitude ($OR=.39$, $p<.001$), compared to those who did not know any methods. The probability of having stigma attitude decreased when the number of prevention methods known increased. ($OR=.31$, $p<0.01$ for those who know 2 methods; $OR=.26$, $p<.001$ for those who know 3 methods).

Table 2 also shows that those aged 25-39 and those aged 15-24 did not differ significantly in regards to level of stigma. However, those aged 40-49 were 1.2 times

more likely to have stigmatized attitude ($p < .05$). This may be because those younger might be more exposed to information regarding HIV and AIDS or/and did not view those HIV infected as social evil or fear of them.

One important indicator of social economic status - wealth quintile was also associated with stigma ($p < .001$). Those in third, fourth and fifth quintiles (middle and rich people) were less likely to have stigma attitude, compared to those in the poorest quintile. However, those in poorer and poorest quintile do not differ significantly in regards of stigma.

We also examined the relationship between ever had HIV tested and stigma. We hypothesized that a person who had had HIV tested might be among those who were less likely to hold stigma attitude. This is supported by the result in table 2 ($OR = .83, p < .01$). This may be explained by the fact that those had HIV tested might have received counseling before and after the test, and thus had more knowledge of HIV. Correct knowledge in turn makes them less fear of HIV as well as those infected with HIV. This might also be because those tested were usually among those at risk of HIV infection and as thus they did not want to stigmatize themselves- as a member of the group that were already misunderstood and/or discriminated by the general public.

There were no differences between being resided in urban or rural area; males or females; young or old with respect to HIV related stigma. Marital status also did not affect stigma. The concentration of people who had ever been tested for HIV in the community, mean levels of education and wealth in the community were not significantly associated with individual's stigma attitude. This may be explained by the fact that individual attitude was not affected by how the community perceived stigma issue.

Finally, we look at the marginal effect of independent variables in predicting outcome (stigma). The predicted probability that a person with 1 misconception having stigma attitude was 3.2% higher than that of a person who had no misconception, holding other variables fixed at mean. Similarly, the predicted probabilities that a person with 2 misconceptions and 3 misconceptions holding a stigma attitude were respectively 10.1% and 14.3% higher than that of a person who had no misconception.

Table 2: Multivariate relationship between stigma and background characteristics

<i>Variables</i>	<i>OR (95%CI)</i>	<i>P-value</i>
Misconception		
No misconception	1.00	
One misconception	1.28 (1.14-1.44)	<.001
Two misconceptions	2.60 (2.13-3.17)	<.001
Three misconceptions	6.44 (3.96-10.48)	<.001
Knowledge of HIV prevention (ABC)		<.001
Don't know any	1.00	<.001
Know 1 methods	0.39 (0.20-0.76)	<.001
Know 2 methods	0.32 (0.17-0.61)	<.001
Know 3 methods	0.27 (0.14-0.51)	<.001
Gender		<.001

Female	1.00	
Male	1.07 (0.95-1.21)	.18
Age group		
15-24	1.00	
25-39	1.04 (0.89-1.22)	.62
40-49	1.22 (1.02-1.46)	.03
Education		
Less than primary	1.00	
Lower Secondary	0.64 (0.54-0.77)	<.001
Higher secondary	0.55 (0.44-0.68)	<.001
Higher	0.51 (0.40-0.64)	<.001
Marital status		
Never married	1.00	
Married/together	1.09 (0.93-1.29)	.27
Divorced/separated	1.09 (0.79-1.50)	.60
Residence		
Urban	1.00	
Rural	0.98 (0.76-1.26)	.87
Wealth quintile		
Lowest	1.00	
Second	0.80 (0.61-1.04)	.10
Middle	0.70 (0.51-0.95)	.02
Fourth	0.64 (0.48-0.86)	<.001
Highest	0.62 (0.46-0.84)	<.001
Ever tested for HIV		
No	1.00	
Yes	0.83 (0.71-0.96)	.01
Mean-ever tested	0.46 (0.17-1.27)	.13
Mean-wealth	1.00 (0.94-1.07)	.54
Mean-education	1.01 (.99-1.00)	.86

Discussions

The results indicate that stigma and misconceptions toward HIV/AIDS in Vietnam remain common, except for willingness to care for a family member who has HIV/AIDS. Misconception was clearly the strongest predictor of stigma. The more misconception a person had, the more stigmatizing s/he was. This also explained by Khuat's study in which many people stated that the message about HIV transmission route was ambiguous. People were so afraid of possible transmission through casual contacts with those HIV with infected. (*Khuat et al, 2004*). Even mosquito's bite, which maybe connected with blood, was seen as carrying risks of HIV transmission. The findings suggest that efforts aimed to address these misconceptions are urgently needed and will significantly contribute to stigma reduction.

Knowledge of HIV prevention: "know ABC", a recommended indicator by UNAIDS, was also significantly associated with stigma. Knowledge of HIV prevention is a strong indicator and negatively and significantly associated with stigma. This may deems that lack of knowledge causes misconception which leads to stigma. The finding again suggests that HIV education program to increase knowledge of HIV will likely be resulted in decreasing HIV-related stigma.

Other social economic status (SES) indicators such as education level and wealth index were also significantly associated with stigma. Those wealthier, more educated

were less likely to stigmatize people living with HIV. HIV and AIDS epidemic mostly affect people in lower SES but those who were in lower SES were also more likely to have stigmatizing attitude. This might make the problem worse for those living with HIV and in a poor SES.

The fact that people were willing to care for their family members if one got infected with HIV suggests that much of care for HIV infected people in Vietnam has been and will continue to rely on family members. Family value is strongly held in many generations of Vietnamese. Khuat found in her qualitative study that mothers and wives would always find ways to make their sons/husbands feel comfortable when they got sick because of AIDS. (*Khuat et al, 2004*). These mothers and wives might be influenced by fears and moral issues but still think that they must take care of their infected family members. This would benefits those infected and suggests that the fight against stigma may be successful.

We also hypothesized that individuals who live in communities with higher level of knowledge and lower levels of misconceptions and stigma are less likely to hold a stigma attitude against people living with HIV/AIDS, independent of other factors. However, our analysis does not support this hypothesis. Individual attitudes are independent from community attitudes. It suggests that interventions that address these issues at the individual level are much more important than ones at the community level.

In conclusion, our study shows that HIV-related stigma remains high in Vietnam. This highlights, in addition to limited qualitative studies and anecdotal evidence, that stigma is the most powerful obstacle in the fight against HIV and AIDS in Vietnam. The findings also indicate that most of stigma is originated from the fear of HIV transmission through causal contacts such as mosquito's bite, sharing food, and etc. Unfounded fears and uncertainties play an important role in causing stigma. The study also deems that more attention and evaluation would be needed for the HIV/AIDS intervention programs in Vietnam. Many efforts have been done in fighting against HIV epidemic but the misconception among general population still an alarming issue.

Intervention programs need to focus not only on how HIV is transmitted but also on how HIV is not transmitted. Only when people clearly understand that HIV is not an easily transmitted virus and HIV infected people can live, work and pursue a normal life; can stigma in community be reduced. Social evil should also not be linked directly with HIV and AIDS in order to make programs that aim to reduce stigma possible successes.

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