

**CONDOM USE RELATED TO HIV/AIDS PREVENTION  
AMONG FEMALE COMMERCIAL SEX WORKERS (CSWs)  
IN QUANG NINH PROVINCE, VIETNAM**

**NGUYEN THI MINH TAM**

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Thesis  
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IN QUANG NINH PROVINCE, VIETNAM**

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Mrs. Nguyen Thi Minh Tam  
Candidate

---

Assoc. Prof. Orapin Pitakmahaket, Ph.D.  
Major-Advisor

---

Emeritus Prof. Suporn Koetsawang, M.D.  
Co-Advisor

---

Assoc. Prof. Rassmidara Hoonsawat, Ph.D.  
Dean  
Faculty of Graduate Studies

---

Assoc. Prof. Amara Soonthorndhada, Ph.D.  
Chair  
Master of Arts Programme in Population and  
Reproductive Health Research  
Institute for Population and Social Research

Thesis  
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**CONDOM USE RELATED TO HIV/AIDS PREVENTION  
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on

August 17, 2004

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Mrs. Nguyen Thi Minh Tam

Candidate

---

Assoc. Prof. Orapin Pitakmahaket, Ph.D.

Chairman

---

Emeritus Prof. Suporn Koetsawang, M.D.

Member

---

Assoc. Prof. Siriwan Grisurapong, Ph.D.

Member

---

Assoc. Prof. Rassmidara Hoonsawat, Ph.D.

Dean

Faculty of Graduate Studies

Mahidol University

---

Assoc. Prof. Bencha Yoddumnern–Attig, Ph.D.

Director

Institute for Population and Social Research

Mahidol University

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Nguyen Thi Minh Tam

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**NGUYEN THI MINH TAM 4638495 PRRH/M**

**M.A. (POPULATION AND REPRODUCTIVE HEALTH RESEARCH)**

**THESIS ADVISORS: ORAPIN PITAKMAHAKET, Ph.D.,  
SUPORN KOETSAWANG, M.D.**

**ABSTRACT**

The study aims to determine factors influencing consistent condom use among CSWs in Quang Ninh province, Vietnam. Two hundred and sixteen CSWs from “The HIV Second Generation Surveillance in Quang Ninh Province” were analysed by using binary logistic regression.

The majority of the CSWs were young, single, and from other provinces. The main reason which drove the young girls into sex work was economic difficulties. Their knowledge on HIV/AIDS was at a moderate level and was insufficient to understand their risk of contracting HIV. The CSWs were three times less likely to use condoms with their regular partners compared with their casual partners. Perceived susceptibility to HIV infection and number of sexual partners of the CSWs could significantly predict consistent condom use.

In order to enhance practicing safe sex, the HIV intervention program should increase people's HIV/AIDS knowledge and awareness of risk of contracting HIV, empower CSWs with negotiation skills to use condoms and encourage a positive outlook for their personal future. In addition, intervention program for CSWs could be carried out more effectively if they had support from local governments as well as the owners of entertainment establishments.

**KEY WORDS: CONDOM USE/FEMALE COMMERCIAL SEX WORKERS/  
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## **LIST OF ABBREVIATIONS**

ADB	Asian Development Bank
AIDS	Acquired Immune-Deficiency Syndrome
APACP	AIDS Prevention and Control Project
BCC	Behavioral Change Communication
BSS	Behavioral Surveillance Survey
CSW	Female Commercial Sex Worker
DFID	UK Department for International Development
FHI	Family Health International
GCSD	Gender Center for Sustainable Development of Mongolia
HIV	Human Immuno-deficiency Virus
IDU	Injecting Drug User
IEC	Information, Education and Communication
MOH	Ministry of Health of Vietnam
MOLISA	Ministry of Labour, War Invalids and Social Affairs
ReCAPP	Resource Center for Adolescent Pregnancy Prevention
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Programme on HIV/AIDS
USA	United States of America
WHO	World Health Organization

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background**

##### **1.1.1 HIV/AIDS epidemic situation in the World.**

The first case of HIV infection was detected in June 1981 in Los Angeles of California, the USA (DFID, 2002). More than 20 years have passed and today AIDS has become the most dangerous disease that mankind has ever confronted (DFID, 2002). According to UNAIDS/WHO's report, by the end of December 2003, an estimated 40 million people living with HIV/AIDS worldwide including five million new HIV infections in 2003, and AIDS killed approximately 3 millions people totally (UNAIDS/WHO, 2003).

##### **1.1.2 HIV/AIDS epidemic in Vietnam**

By the end of December 2003, 74,180 HIV infected people had been reported cumulatively and AIDS killed 6,550 people totally (Ministry of Health of Vietnam, 2003a). The majority of HIV infected people (59.7%) are injecting drug users (IDUs), followed by female commercial sex workers (CSWs) (3.9%) and sexual transmitted infection (STI) patients (2.0%). The number of HIV transmission cases through sexual intercourse has increased among CSWs, HIV prevalence among CSWs increased from 0.6% in 1994 to 5.9 % in 2002 (Ministry of Health of Vietnam, 2002). By the year 2005, an estimated 198,000 HIV infected people in which 51,200 cases will develop AIDS and 46,000 will die as a result of AIDS (WHO, 2000).

##### **1.1.3 HIV/AIDS epidemic in Quang Ninh province, Vietnam**

Quang Ninh Province is in the extreme north of Vietnam. The two major industries of Quang Ninh province are tourism and coal mining. Therefore this province attracts many young people from other provinces to work as coal mining

workers or sex workers. The first HIV infection was detected in 1994. Cumulatively 6,224 HIV infected people had been reported by December 30, 2003. This number represents 10 % of HIV infected nationwide. Quang Ninh is now having the highest reported HIV prevalence in Vietnam. Almost 75% of the HIV infected people were injecting drug users (IDUs) (Ministry of Health of Vietnam, 2003a). The HIV prevalence among IDUs increased rapidly from 0% in 1996 to 40% in 1997 and 66% in 1998. However, HIV prevalence was low in other groups such as CSWs (0.5%), and pregnant women (0.7%) (Ministry of Health of Vietnam, 2002).

#### **1.1.4 Prostitution in Vietnam**

The development of economy, trade and tourism and other social activities has brought the resurgence of prostitution. An increasing gap between the rich and the poor is also a factor stimulates prostitution explosion (DFID, 2002). By the laws of Vietnam, prostitution is illegal. The growing numbers of CSWs is variety in many reports. According to MOLISA, there were 40,200 CSWs in 1990 and 70,000 in 1995 nationwide (Elmer, 2001) and unofficial estimates range from 300,000 to 500,000 (Khuat et al., 1997).

In Vietnam, there are two types of female commercial sex workers: direct sex workers (street sex workers) and indirect sex workers. If they are young and attractive, they would work in entertainment establishments such as bars, karaoke, massage parlors, and discos (indirect sex workers). If they are not young enough or their beauty fade, they would attract their clients along the streets (direct sex workers). The majority of direct sex workers are poor, having low educational levels and many are illiterate. They have sex for money of their own and /or their family. Their clients are of low socioeconomic status and living far from home such as construction workers, truck drivers or IDUs etc. (DFID, 2002)

Indirect sex workers tend to have smaller number of sexual partners but higher price than direct sex workers. Their clients often are businessmen, government officers, and even students (DFID, 2002). It is estimated that indirect sex workers accounted for 70% of all prostitution nationwide (Elmer, 2001).

The levels of condom use of CSWs are low, and they are more likely to use condoms consistently with casual partners than regular partners/lovers. The potential

for HIV transmission from CSWs to others becomes more serious when CSWs also use drugs. A survey in 5 provinces in Vietnam reported that 57% of the CSWs were using or injecting drugs, and a high percentage of them had reused injection needles over the previous month (ADB, 2002, p 38).

The CSWs are mobile group and they move regularly between districts as well as to other provinces (Elmer, 2001). A survey funded by Asian Development Bank showed that the HIV prevalence among CSWs was 20.4%, and 50% of those infected moved and practised prostitution in other provinces (ADB, 2002, p 38). Once the HIV epidemic is established among CSWs, it may spread quickly to their clients, and then to the general population (Ministry of Health of Vietnam, 2002).

#### **1.1.5 The National Response to the HIV epidemic.**

The number of HIV infected in Vietnam increases every year, warning the wide spread of the epidemic (Ministry of Health of Vietnam, 2002). To cope with the situation, in 1990, the Government established the National AIDS Committee under Ministry of Public Health, chaired by Minister of Public Health. After 2000, the Prime Minister decided to merge 3 national committees on AIDS, drugs and prostitution into one and within the framework of this new National Committee, Ministry of Public Health is the one responsible for AIDS prevention in Vietnam (Vietnamese Government Cabinet, 2000). The action plans for period 2004- 2010 are as follows:

- Behavioral Change Communication (BCC) Program in HIV/AIDS Prevention.
- Harm Reduction Intervention Program for HIV/AIDS Prevention
- Care and Support for People Living with HIV/AIDS Program
- HIV/AIDS/STI Surveillance Program, monitoring and assessment program
- Access to HIV/AIDS Treatment Program
- Prevention of Mother-to-Child Transmission Program
- STIs Management and Treatment Program
- Capacity building and international cooperation strengthening in HIV/AIDS
- Safe blood transfusion program

(Ministry of Health of Vietnam, 2003b).

In general, Vietnamese's knowledge on HIV/AIDS is increasing because of the government is trying every effort via information, education and communication (IEC) program (Ministry of Health of Vietnam, 2003b). In the action plans of national AIDS program for period 2004- 2010, behavioral change communication (BCC) program becomes one of the priority which purpose is providing more effective information on HIV/AIDS/STI to different target population.

In parallel with IEC and BCC programs, intervention programs such as condom promotion and exchange syringe and needle have been implemented in some provinces. Those programs focus on two high-risk groups; female commercial sex workers and injecting drug users (Ministry of Health of Vietnam, 2003b).

## **1.2 Problem statements and rationale.**

Recently, Vietnam faces the possibility of a serious epidemic. HIV/AIDS epidemic in Vietnam is driven by injecting drug use; with additional HIV spread occurring through heterosexual transmission (UNAIDS/WHO, 2003). To cope with the HIV/AIDS epidemic, the IEC program and harm reduction intervention has been the priorities in the national HIV/AIDS strategies. The aim of IEC program is increasing the knowledge on HIV/AIDS among general population, especially high-risk groups such as injecting drug users and female sex workers (Ministry of Health of Vietnam, 2003b). However, the increase of knowledge was not followed by an increase in practice safe sex such as using condom (ADB, 2002). A survey conducted among CSWs in 5 provinces in Vietnam found that 93.9% - 98.6% of karaoke girls knew using condom could prevent HIV but only 15.9% - 38.9% of them used condoms consistently with regular partners (ADB, 2002). Therefore, it could be other factors that influence the decision making of CSWs to use or not to use condom for HIV prevention.

There have been some studies on sexual behaviors of CSWs in Vietnam (Elmer, 2001). However, those studies were conducted in small scale, mostly in the areas with high HIV prevalence among CSWs. Recently, national AIDS program intend to expand condom promotion program in 21/61 provinces with the target group is CSWs. So more qualitative and quantitative researches are needed in order to gain

detailed information on sexual behavior, condom use and knowledge of HIV/AIDS of CSWs. This information is always important for helping policy makers to design appropriate HIV intervention program for preventing HIV transmission in Vietnam.

### **1.3 Research Questions**

(i) What are levels of condom use by female commercial sex workers in Quang Ninh province, Vietnam?

(ii) What are the factors influencing condom use among female commercial sex workers in Quang Ninh province?

### **1.4 Research Objectives**

(i) To assess levels of condom use by female commercial sex workers in Quang Ninh province, Vietnam.

(ii) To determine the factors influencing condom use of female commercial sex workers in Quang Ninh province.

### **1.5 Definition of terms**

**1.5.1 Female commercial sex workers (CSWs)** in this study were defined as women who worked in karaoke. They earned money through selling drinks or food, and having sex.

**1.5.2 Knowledge of HIV/AIDS** refers to the informants' understanding about the HIV preventive methods.

**1.5.3 Perceived susceptibility to HIV infection** refers to the respondent's opinion of their risk of contracting HIV.

**1.5.4 Level of education of CSWs** refers to the level of education that the karaoke girls completed. Education system in Vietnam is classified into 4 levels: primary school (grade 1-5), secondary school (grade 6-9), high school (grade 10-12), university and vocational training school.

**1.5.5 HIV Preventive Behavior** refers to practice related to HIV prevention - using or not using condoms.

**1.5.6 Sexual Behavior** refers to types of partners and numbers of sexual partners of CSWs.

**1.5.7 Peer educators** refer to the CSWs, who involve in education program in order to provide information to other CSWs about HIV/AIDS/STI and safe sex.

## CHAPTER 2

### LITERATURE REVIEW

This chapter reviews models used to study sexual behavior, the findings from the previous studies about the HIV preventive behavior – using condom of female sex workers, and its relationship with other factors.

#### 2.1 Models used to study sexual behavior

Unprotected sex is a factor driving HIV epidemic (UNAIDS/WHO, 2003). Several theories and models were developed in order to explain the process of sexual behavior change as well as its influence factors. The Health Belief Model (HBM) was developed in the 1950s by Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels affirms that people will change behavior depend on their knowledge and attitudes. According to the HBM, people will take positive health actions based on their desire to avoid a negative health consequence. For example, HIV is negative health consequence, and the desire to avoid HIV can be used to motivate them practice safe sex (ReCAPP, 2004).

The AIDS Risk Reduction Model (ARRM) developed by Catania et al. in 1990 (FHI, 2003) provides a framework for explaining the process of behavior change of individuals specifically in relation with the sexual transmission of HIV/AIDS. This model includes three-stage (FHI, 2003): the first stage – *recognition and labeling of one's behavior as high risk* – hypothesizes that *knowledge about HIV transmission, perceived susceptible to contracting HIV, social norms and networking influence how people perceive one's behavior as high risk*; the second stage – *making a commitment to reduce high-risk sexual contacts and to increase low-risk activities*– hypothesizes that *knowledge of the health utility and enjoy ability of a sexual practice, social factors (group norms and social support) influence an individual's cost and benefit and self-efficacy beliefs*; the third stage – *taking action* - focus on

*the ability to communicate verbally with sexual partners* (negotiation skills). This model emphasizes that HIV/ADS knowledge, perceived HIV susceptibility, self-esteem, negotiation skills, and social support are important factors for helping people change their risky behavior (FHI, 2003).

In short, there are several psychosocial factors which determinant HIV-related behaviors. Issues include HIV/AIDS knowledge and attitudes, HIV risk perception, societal norms, self-efficacy (the confidence to insist on condom use), and stage of change. All of these factors are important components of many common theories, which attempt to explain behavioral change.

## **2.2 Previous studies on condom use among CSWs**

### **2.2.1 Socio-demographic characteristics of female sex workers and condom use**

The socio-demographic factors refer to age, marital status, level of education, and duration of work of CSWs in relation to their sexual preventive behavior.

The findings from recent studies on CSWs in Vietnam show that almost CSWs were in their mid-twenties, single, came from poor families in rural areas, and completed primary school or secondary school (Nguyen et al., 2000; Elmer, 2001). Similar demographic characteristics of CSWs were found in other studies in Indonesia, Hong Kong, Tanzania (Thorpe et al., 1997; Ford et al., 2000; Chan et al., 2001; Mgalla and Pool, 1997).

Some researchers suggest that education was related to condom use, condom use increased with increasing CSW's educational level. Higher-educated women were more likely to use condoms consistently than other ones (Rossem et al., 1999; Rao et al., 1999; Joesoef et al., 2000). Lower percentage of consistent condom use related to lower educational level (Ford and Koetsawang, 1999). Nevertheless, Ford et al. (2000) argue that education was not related to condom use after they controlled for the other variables such as age, HIV/STI knowledge, knowledge of condom use, and number of clients.

The women's age was found to be associated with condom use in some studies. A result in the linear model for condom use of a study in Indonesia shows that older

CSWs were more likely to use condoms than younger ones (Ford et al., 2002). Similarly, Wong et al. (1999) found that younger sex workers (<25 years old) were significantly more likely to be inconsistent condom users. In other studies in Nigeria and Australia, Rossem et al. (1999) and O'Connor et al. (1996) found that inconsistent condom use was associated with increasing CSW's age. However, some researchers conclude that women's age did not have a significant effect on condom use (Jorge et al., 1998; Ford et al., 2000; Toor, 2003; Wong et al., 2003; Wilson and Minkoff, 2001).

From the study in Pattaya, Thailand, Toor (2003) found that single female sex workers were more likely always use condoms than married ones. In contrast, Ford et al. (2000) and Wong et al. (2003) argue that marital status was not associated with condom use after they controlled for the other variables.

Duration of work of CSWs was a predictor for condom use. The women worked as a sex worker less than 1 year was more likely to be inconsistent condom users. (Wong et al., 1999; Nguyen et al., 2000). However, some researchers conclude in their studies that duration of work as sex workers were not associated with consistent condom use (Jorge et al., 1998; Ford et al., 2000; Kerrigan et al., 2003).

In general, condom use among CSWs is not always depend on only socio-demographic factors but also might be involving with other factors which need to be identified and studied.

### **2.2.2 HIV/AIDS knowledge and condom use**

HIV/AIDS knowledge is an important factor to recognize one's behavior as high risk and then to take action to change that behavior (FHI, 2003). If persons who believe that they are at risk of contracting HIV and know that using condom can prevent HIV they might adopt measures to protect themselves (Sara, 2003).

In many countries, because of trying every effort of IEC program, the HIV/AIDS knowledge level of CSWs is relatively high. For example, almost CSWs in a study in Cambodia knew about the incurability of AIDS (92.9%), the effectiveness of condom in preventing HIV/AIDS (90.7%) (Wong et al., 2003). Similar results were found in other studies in Indonesia, Vietnam, India, and Singapore (Ford et al., 2000; Dominique et al., 2001; Moon, 2002; Wong et al., 1999).

There are some studies, which found positive relationship between HIV knowledge and condom use. Female sex workers, who had more HIV/AIDS knowledge were more likely to use condom (Habib et al., 2001; Dominique et al., 2001). Koetsawang and Ford (1993) also found that CSWs who failed to use condoms had lower level of HIV/AIDS knowledge than the others.

Unlike many studies above, Toor (2003) found a negative association between HIV/AIDS knowledge and condom use: the percentage of consistent condom use of CSWs with poor knowledge was higher than CSWs with good knowledge. On the contrary, some researchers argue that HIV/AIDS knowledge had no effect on the consistency of condom use (Rossem et al., 1999; Wong et al., 1999; Wong et al., 2003). The disconnection between knowledge and behavior was explained by two factors found to be related with consistent condom use named sex workers' income and negotiation skills as a case study in Cambodia found (Wong et al., 2003). Because lack of negotiation skills so CSWs could not persuade their clients to use condom even they had a good HIV/AIDS knowledge.

Although many studies indicate that HIV knowledge of CSWs has an effect on condom use, some studies did not find any relationship between HIV knowledge and condom use. So maybe only the knowledge is not enough, behavioral change could require other factors, such as negotiation skills. It is believed that economic condition can also affect condom use.

### **2.2.3 Perceived susceptibility to HIV infection and condom use**

The levels of perceived susceptibility to HIV infection of CSWs varied by studies. In a study in Thailand, nearly half of CSWs felt they had “no chance” and about one-third of them felt they had “slight chance” of becoming HIV infected (Koetsawang and Ford, 1993). Similarly, the majority of CSWs in a study in India believed that they themselves, their sexual partners were unlikely to become HIV infected (Moon, 2002). But in a study in Mongolia, the CSWs had high level of perceived susceptibility to HIV infection, therefore almost 72% of female sex workers answered that they would voluntarily go for HIV test (GCSD, 2000).

According to the AIDS Risk Reduction Model (ARRM), perceived risk is a key element for changing risky sexual behavior (FHI, 2003). Women who thought that they were at high risk of contracting HIV were more likely to use condoms consistently (Rossem et al., 1999; Sohn and Jin, 1999; Ford et al., 2000). The female sex workers who perceived they had “a low chance” or not at risk to be HIV infected were unlikely to use condoms when they had sex with their clients (Koetsawang and Ford, 1993). Koetsawang and Ford (1993) also suggest in their study that if CSWs have hopefulness in their future, it may enhance their safe sex behavior: women who felt they had a good or fair “chance” to “be a good wife in a successful family in the future” were more likely to be consistent condom users than those who felt they had “little or no chance” of such prospect. One possible interpretation is that women had high levels of perceived susceptibility to HIV infection had more capable to convince their clients to use condom (Ma et al., 2002).

Almost CSWs who participated in the study in Panama City had high level of perceived risk of HIV infection, this reflected in high percentage of consistent condom use of their clients, which was almost 100% (Carrington and Betts, 2001). This is in contrast to Thailand, where the opposite situation was found. The CSWs who perceived that they were at high risk of contracting HIV infection were more likely to practice unprotected sex with their clients (Wawer et al., 1996).

In sum, perceived susceptibility of HIV infection was found to have a positive relationship with consistent condom use. However, some studies still found a negative relationship between the two variables. Therefore the direction of association between two variables is needed to identify in this study.

#### **2.2.4 Sexual relationship and condom use**

In general, men having sex with female sex workers are often not offered to use condoms or did not agree to use condoms. For example, only 9% of male were initiated to use condom in a study in Mongolia (GCSD, 2000). Some of CSWs presumed that men did not carry condoms because they afraid their wife might find the condoms and realize that they were involving in extra-marital sex (Koetsawang and Ford, 1993). But Albert et al. (1998) found in their study in America that only

2.7% of all clients who visit the brothels refuse to use condom. The condom policy in the brothels is an important factor in ensuring the use of condom by clients.

Many female sex workers had their first sexual intercourse when they were adolescent (Khuat et al., 1997; Nguyen et al., 2000; Thorpe et al., 1997; GCSD, 2000; Koetsawang and Ford, 1993; Joesoef et al., 2000). The duration of working in the sex trade of CSWs varied by studies. The average number of years was 1-3 years (Ford et al., 2000; Ma et al., 2002; Wawer et al., 1996) or 4 years (Joesoef et al., 2000), and very few of them worked more than 5 years (GCSD, 2000).

Condom use was found to vary substantially by types of partners. In general, female sex workers were more likely to use condoms with casual partners than regular partners (Morisky et al., 1998; Mgalla and Pool, 1997; Hawken et al., 2002; APACP, 2001). Carrington and Betts (2001) found in their study in Panama that 99% of female sex workers reported consistent use of condom with casual partners compared to 25% with regular partners. In another study in Vietnam, 5% indirect sex workers reported consistent use of condom with regular partners compared to 47% with casual partners (Nguyen et al., 2000).. However, other studies in Indonesia and Vietnam found unremarkable difference in condom use between female sex workers with casual partners and regular partners (Ford et al., 2000; Nguyen et al., 1998).

The most common reason for not using condoms with regular partners were “the partners refused to use” (Chan et al, 2001; Moon, 2002) or “because of perceived trust” (Mgalla and Pool, 1997; Chan et al, 2001; Basuki et al., 2002). The another reason for not using condom was “CSWs themselves were not interested” (Moon, 2002) or “CSWs’ fear of poverty was greater than their fear of AIDS” (Wawer et al., 1996), and many CSWs believed that having sex with their boyfriend was safe (Khuat et al., 1997; Chan et al, 2001).

There was a wide variation in the frequency of clients of female sex workers. Indirect sex workers had average about 2-3 clients per day (Koetsawang and Ford, 1993; Elmer, 2001; GCSD, 2000). In other studies, number of clients of CSWs range from 3 clients per week (Hawken et al., 2002) to 36 clients per week (Moon, 2002). The numbers of clients depend on the types of sex workers, her age and beauty, and the types of sex services provided (i.e. few hours, all night) (Elmer, 2001).

Some studies found the association between number of partner of female sex workers and condom use. A result from the study in Peru shows that consistent condom use was associated with number of clients in the last month (Jorge et al., 1998). Female sex workers with more clients were more likely to use condoms than those with fewer clients (Wong et al., 1999; Rossem et al., 1999). Similarly, Nguyen et al. (2000) found in their study in Vietnam that female sex workers who had more than 5 partners were more likely to use condom consistently. In contrast, some researchers conclude that the numbers of clients of female sex worker did not have a significant effect on condom use (Ford et al., 2000; Joesoef et al., 2000).

While female sex workers reported fairly high levels of condom use, the levels of STI infection among them were still high. This might reflect that female sex workers over reporting on condom use (Ford et al., 2000). Mgalla and Pool (1997) also found that the few women who reported “always use condom when they having sex with their clients” but they still felt at risk of contracting HIV/STI. This suggests that in fact they did not always use condoms or incorrectly using condoms.

In general, types of sexual partners and numbers of sexual partners of CSWs are related to condom use. Nevertheless, some studies did not find any relationship between sexual partnership and condom use. That is to say, the relationships between the two variables are still being debated.

### **2.2.5 Alcohol consumption and condom use**

Alcohol is a factor might interfere with judgment and decision-making. Therefore alcohol consumption before having sex might increase the probability of unprotected sexual intercourse (Leigh, 2002). Clark et al. (1997) found that the factor affected condom non-use was alcohol consumption before having sex. Similarly, the results from Tveit et al. (1996), Myer et al. (2002) and Toor (2003) show that alcohol consumption was related with decreased condom use.

A study among young adults aged 15 to 24 with low-income in Detroit, Africa American also demonstrates association between drinking alcohol and condom use: the quantity of alcohol consumption was negative related to condom use in all type of partners: ”married/cohabited” partners, “knew well” partners, and “casual” partners

(Ford and Norris, 1998). On the contrary, Leigh (2002) suggests in his study in USA that drinking alcohol was not necessarily linked to risky sexual behaviors.

In other words, alcohol consumption before having sex can directly determine condom use. However, most studies above did not mention about the quality of alcohol, so more research in this issue is needed to explore in order to deep understanding this behavior, especially in sex trade context.

### **2.2.6 Environmental-structural support and condom use**

Many women in a study in Mongolia found it was difficult to obtain condoms, which maybe because of non-accessibility or too expensive (GCSD, 2000). The source of condom varied from study to study. The study in Mongolia found that the most CSWs procure condoms from kiosks, some of them buy from drug stores, and fewer from hotels (GCSD, 2000). In other studies in Vietnam and Indonesia, condoms were most frequently obtained from drug stores or pharmacies (Nguyen et al., 2000; Joesoef et al., 2000). The result from a study in Kenya shows that most condoms were obtained from local shops (50%), clinics (20%) and pharmacies (10%) (Hawken et al., 2002).

A study in the Philippine's (Morisky et al., 1998) found that 43.6% of female sex workers reported the price of condom were too high to use regularly. Because of poverty the majority of women become prostitutes, so it is unreasonable for them to buy condoms regularly. One-third of female sex workers in a study in the Philippine's occasionally have sex without using condoms because one was not available (Morisky et al., 1998).

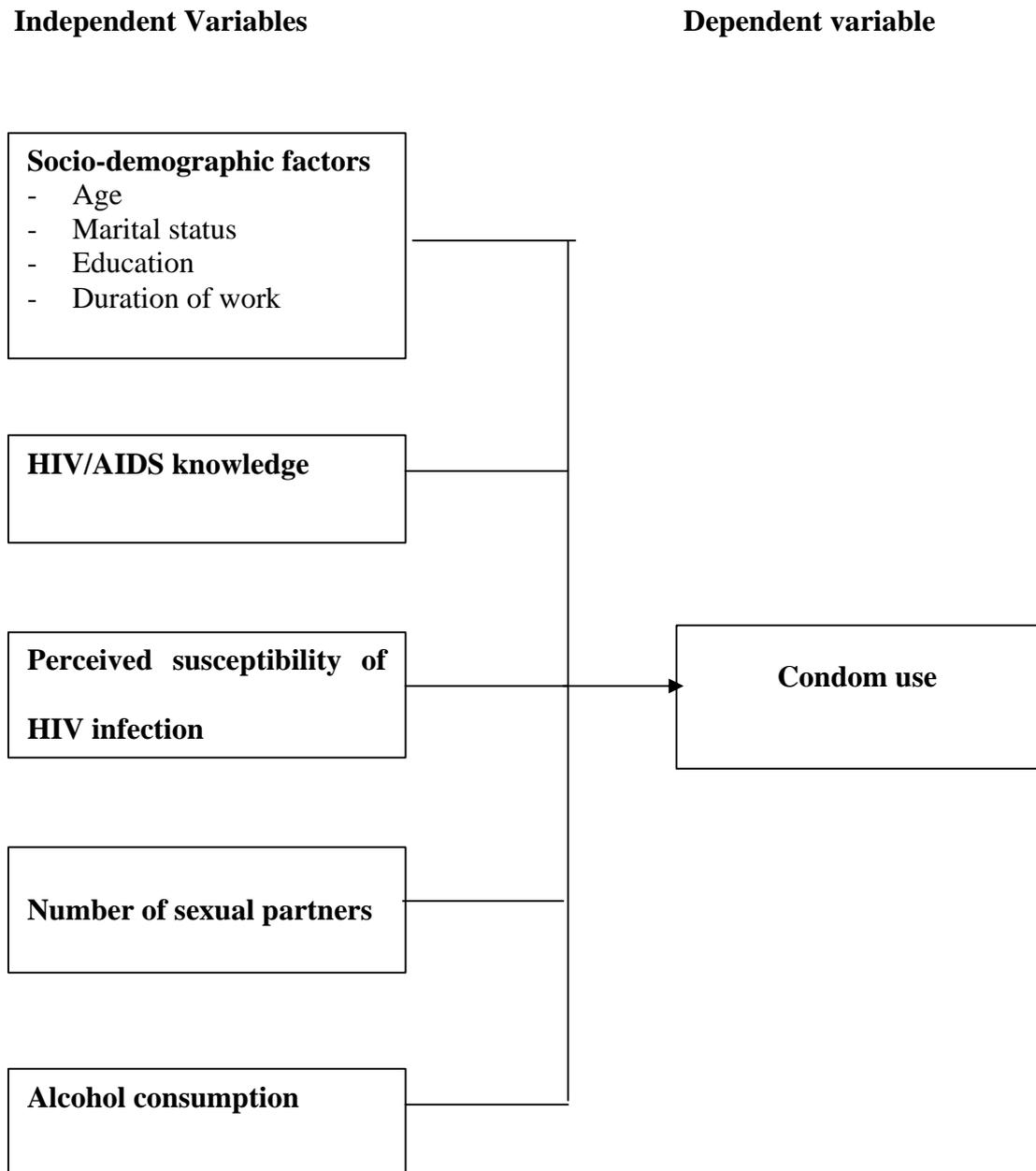
A research in Dominican Republic also demonstrates that sex workers from entertainment establishments with high levels of environmental-structural support (e.g. access to condom, condom use policies) were more likely to use condom consistently with their regular partners than those from establishment with low levels of such support (Kerrigan et al., 2003). However, Wong et al. (1999) suggest that inconsistent condom use was more likely to be the result of lack of negotiation skills of CSWs than because of non-availability of condoms. The availability and costs of condoms were not the main cause for CSWs did not use condom (Chan et al., 2001).

In sum, environmental-structural support can directly determine condom use of CSWs. However, this study is unable to address this factor because lack of information in the secondary data set.

### **2.3 Conceptual framework**

As reviewed above, there are complicated factors ranged from cultural, social, to psychological influence condom use. Because of limitation of the secondary data source such as the information on negotiation skills, self-efficacy, establishment-based condom use policies which are not available, and the accessibility of condoms is no longer a problem in Quang Ninh province, so in this study socio-demographic factors, HIV/AIDS knowledge, perceived susceptibility to HIV infection, number of sexual partner, and alcohol consumption have been included in the conceptual framework for testing its relationship with consistent condom use (Figure 2).

**Figure 2 Conceptual framework**



**2.4 Research hypothesis**

Socio-demographic factors, HIV/AIDS knowledge, perceived susceptibility to HIV infection, number of sexual partner, and alcohol consumption influencing condom use.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Source of data**

Data were used in this study came from the project “The HIV Second Generation Surveillance in Quang Ninh Province” which was conducted between July to December, 2002 by Hanoi Medical University of Vietnam, collaborated with General Department for Preventive Medicine and HIV/AIDS Control – Ministry of Health of Vietnam.

##### **3.1.1 The objectives of the project**

(i) To describe the knowledge and risk perception on HIV/AIDS of target populations (female sex workers, injecting drug users, and migrant coal mining workers).

(ii) To identify high-risk behaviours in need of change among the target populations.

(iii) To identify HIV and syphilis prevalence among the target populations.

##### **3.1.2 Sampling procedure and sample size**

The project conducted geographic mapping, social mapping and created a list of all karaokes in Halong City and Campha Town, Quang Ninh Province, which were identified having commercial sex activities. The project officers estimated the numbers of CSWs could be contacted, which were 260-415. Totally, 410 karaoke girls were interviewed.

##### **3.1.3 Questionnaire design**

The questionnaire was conducted based on Behavioral Surveillance Survey questionnaire which set up in 8 parts as follows:

Part 1: General information

Part 2: Marital status and employment

Part 3: Sexual intercourse and types of partners

Part 4: Sexual intercourse with casual partners

Part 5: Sexual intercourse with regular partners

Part 6: Sexual intercourse with husband or boyfriend

Part 7: Sexual transmitted diseases

Part 8: HIV knowledge and perceived susceptibility to HIV infection

### 3.2 Sample size of this study

The total respondents of the HIV Second Generation Surveillance Project were 410, but this thesis excluded missing cases in independent variables and dependent variable, so the sample size available for analyzing was 216 karaoke girls.

### 3.3 Operationalization of variables

#### 3.3.1 Independent variables

##### a. Socio – demographic factors of female sex workers

**Age:** refers to ages up to their last birthday in years, which were classified into 3 categories: < 20 years old; 20-24 years old; and  $\geq$  25 years old.

**Marital status:** refers to the current marital status of the karaoke girls, which were classified into single and ever married (currently married, divorced, separated and widowed).

**Level of education:** refers to the highest level of education that completed by the karaoke girls, which were classified into 2 categories: secondary school or lower, and high school or higher.

**Duration of work:** refers to the number of years that the karaoke girls work as sex workers, which were classified into 2 categories:  $\leq$  1 year and  $\geq$  2 years based on the median duration of work (the median duration of work of CSWs in this study was 1).

**b. HIV/AIDS knowledge** refers to the informants' understanding about the HIV preventive methods. Ten questions were asked to the respondents for their possible answers. To analyse the knowledge of the respondents about HIV prevention, HIV/AIDS knowledge was constructed by summing up the scores for ten questions (0 score for each wrong answer and 1 score for each correct answer). The sum of scores

were classified into 2 levels: good knowledge and poor knowledge based on the average score of HIV/AIDS knowledge (mean score HIV/AIDS knowledge in this study was 6.8).

**c. Perceived susceptibility to HIV infection:** refers to the respondent's opinion of their risk of contracting HIV. Perceived susceptibility to HIV infection was classified into 3 categories: at risk, not at risk or do not know their risk.

**d. Sexual relationship** refers to numbers of sexual partners whom female sex workers had sexual intercourse within last month:

- Numbers of regular partners were classified into 2 categories:  $\leq 1$  sexual partner and  $\geq 2$  sexual partners based on the median number of regular partners of CSWs during the last month (median = 1).

- Numbers of casual partners were classified into 2 categories:  $\leq 7$  sexual partners and  $\geq 8$  sexual partners based on the median number of casual partners of CSWs during the last month (median = 7).

**e. Alcohol consumption** refers to those who reported drinking beer or alcohol during the last month. Alcohol consumption was classified into 2 categories:

**Alcohol drinking group** refers to the karaoke girls who reported drink beer/alcohol "every day" or "at least once a week" or "less than once a week" during the last month

**Do not drink group** refers to the karaoke girls who reported "did not drink at all" during the last month.

**3.3.2 Dependent variable** is condom use which was divided into two categories as follows:

**Consistent condom use** refers to the karaoke girls who reported "always" use condom during the last month when they involved in sexual intercourse with their clients

**Inconsistent condom use** refers to those who reported "almost" or "about half of their use" or "sometime" or "never" use condom during the last month when they involved in sexual intercourse with their clients

**Table 3 Summary of Operationalization**

<b>Variable</b>	<b>Operationalization</b>	<b>Measurement level</b>
Age	< 20 years old; 20-24 years old; and $\geq$ 25 years old	Ordinal
Marital status	Single, ever married (currently married, divorced, separated and widowed)	Nominal
Education	Secondary school or lower, high school or higher	Ordinal
Duration of work	$\leq$ 1 year, $\geq$ 2 years	Ordinal
HIV/AIDS knowledge	Good knowledge, poor knowledge	Ordinal
Perceived susceptibility to HIV infection	At risk, not at risk and do not know	Nominal
Numbers of sexual partners.	Numbers of regular partners: $\leq$ 1 sexual partner; $\geq$ 2 sexual partners	Ordinal
	Numbers of casual partners: $\leq$ 7 sexual partners; $\geq$ 8 sexual partners	Ordinal
Alcohol consumption	Drink and do not drink	Nominal
Condom use	Consistent and inconsistent condom use	Nominal

**3.4 Data analysis**

Statistical package for the Social Sciences (SPSS) for Windows version 11.5 was used in data analysis stage.

The unit of analysis in this study is the karaoke girls. The statistical analyse are operated as follows:

- Descriptive statistics such as frequency distribution, percentages, means, and standard deviation were used in order to describe the general characteristic of the karaoke girls.
- Binary logistic regression was employed in order to determine factors influencing consistent condom use of the karaoke girls.

**3.5 Limitation of the study**

Findings from previous studies and behavior theories showed that there were several factors ranged from cultural, social, to psychological factors which influence condom use. Due to using secondary data, this study could not be able to address all

the factors affecting consistent condom use of the karaoke girls such as self-esteem, self-efficacy, negotiation skills, and environmental-structural support.

## **CHAPTER 4**

### **RESEARCH FINDINGS**

The findings of the study are divided into two sections. The first section displays descriptive statistics of general characteristic of the female commercial sex workers by socio-demographic factors, HIV/AIDS knowledge, perceived susceptibility to HIV infection, their sexual relationship and condom use. The second section shows the binary logistic regression of factors influencing consistent condom use in the last month of the 216 CSWs.

#### **4.1 Descriptive statistics of general characteristic of CSWs**

##### **4.1.1 Socio-demographic factors**

###### **a. Age structure**

The female commercial sex workers came from different age groups; the mean age is 23 years old and standard deviation of age is 4. The oldest respondent was 39 years old. While the youngest was 18 years old. Nearly two-thirds of the respondents (65.7%) were aged between 20-24 and about a quarter (24.1%) aged 25 and above (Table 4.1).

###### **b. Marital status, age at first marriage**

Nearly three-quarters (72.7%) of the female sex workers were single and more than one-quarter (27.3%) of them were ever married.

Among married women, the average age at first marriage is 20 years old. About half of them got married between the age of 20 and 24. Those who got married at the age of 19 and younger accounted for 49.2 % (Table 4.1).

###### **c. Educational level**

More than 65% of CSWs graduated secondary school or lower, and 34.3% graduated high school. Only 0.5% of them reported never enrolled in school (Table 4.1).

**Table 4.1 Percentage distribution of the CSWs by age, marital status, education, duration of work, place of birth, working in the other province, and watching TV.**

Characteristics	Frequency	Percent	Statistics values
<b>Age</b> ≤ 19 20-24 ≥ 25	22 142 52	10.2 65.7 24.1	Mean = 23.3 Median = 22 Mode = 21 SD = 4.0 Range = 18 – 39
<b>Marital status</b> Single Ever married <i>Age at first married</i> 16-19 20-24	157 59 29 30	72.7 27.3 49.2 50.8	Mean = 19.9 Median = 20 Mode = 18 SD = 1.9 Range = 16 – 24
<b>Education</b> Illiterate Secondary school or lower High school or higher	1 141 74	0.5 65.2 34.3	
<b>Duration of work</b> 0-1 year 2-3 years 4-8 years	127 67 22	58.8 31.0 10.2	Mean = 1.5 Median = 1 Mode = 1 SD = 1.4 Range = 0 – 8
<b>Place of birth</b> Quang Ninh Other provinces	58 158	26.8 73.2	
<b>Working in the other province</b> Yes No	62 154	28.7 71.3	
<b>Watching TV</b> Every day At least once a week Less than once a week Not at all	120 68 23 5	55.6 31.5 10.6 2.3	
<b>Total of each characteristics</b>	<b>216</b>	<b>100.0</b>	

**d. Duration of work**

The median duration of working as sex worker is one year and about 10.2 % of them had been working in sex trade more than 3 years. 73.2% of them were migrants who had come from outside Quang Ninh province, and 28.7% of them had worked as sex workers in the other provinces (Table 4.1).

**e. Watching television**

More than half of CSWs (55.6%) watched television every day and nearly one-third of them (31.5%) watched television at least once a week, so it is a good chance for distributing HIV/AIDS knowledge via television (Table 4.1).

**4.1.2 Reasons for being CSWs**

There are variety of reasons for being karaoke girls such as poverty, jobless and obligation. But the three following causes are more frequent occurrence: in need of money (69.9%), lovelorn (32.4%) and poverty (28.2%) (Table 4.2).

**Table 4.2 Percentage distribution of the CSWs by reason for being CSWs**

Reason for being CSWs	Frequency	Percentage
In need of money	151	69.9
Lovelorn*	70	32.4
Poor	61	28.2
Easy way to earn money	11	5.1
Obligation**	5	2.3
Jobless	2	0.4
Friend enticing	1	0.2

Note: \* Lovelorn means women being prostitutes because their lovers leave them

\*\* Obligation means women were forced to be prostitutes by their relatives

**4.1.3 Alcohol consumption**

From Table 4.3, only 7.8% of the karaoke girls drank beer or alcohol every day. More than half of them (53.7%) answered that they did not drink at all.

**Table 4.3 Percentage distribution of the CSWs by alcohol consumption.**

Alcohol consumption	Frequency	Percent
Every day	17	7.8
At least once a week	52	24.1
Less than once a week	31	14.4
Not at all	116	53.7
<b>Total</b>	<b>216</b>	<b>100.0</b>

#### 4.1.4 HIV/AIDS knowledge

Table 4.4 presents knowledge of the CSWs by methods of HIV prevention. It was found that the respondents have a basic knowledge about HIV/AIDS prevention. The percentage of respondents who realized correctly two methods for HIV prevention named using condom and clean syringe was quite high: 99,5% and 93.5% respectively. Nevertheless, one-third of CSWs (33.3%) still misunderstood that they could prevent the disease by don't contact with AIDS patients, and some still believed that ones could get infection through mosquito bites.

**Table 4.4 Percentage distribution of the CSWs by HIV/AIDS knowledge**

Prevent HIV/AIDS	Yes		No		Don't know		Don't answer	
	N	%	N	%	N	%	N	%
Using condom	215	99.5	0	0	1	0.5	0	0
Using clean syringe	202	93.5	12	5.6	1	0.5	1	0.5
Only one sex partner	176	81.5	37	17.1	3	1.4	0	0
Never having sex	166	76.9	35	16.2	12	5.6	3	1.4
Don't have sex with many sexual partners carelessly	165	76.4	49	22.7	2	0.9	0	0
Reduce number of sexual partners	108	50	78	36.1	30	13.9	0	0
Don't contact with AIDS patient	72	33.3	109	50.5	34	15.7	1	0.5
Don't eat with AIDS patient	61	28.2	121	56	34	15.7	0	0
Don't use public toilet	40	18.5	130	60.2	45	20.8	1	0.5
Prevent mosquito to bite	40	18.5	154	71.3	22	10.2	0	0

From Table 4.5 the mean score of HIV/AIDS knowledge is 6.8 and standard deviation is 2.4. This reflects that understanding about HIV/AIDS among the CSWs is at moderate level.

**Table 4.5 Percentage distribution of the CSWs by level of HIV/AIDS knowledge**

<b>Level of HIV/AIDS knowledge</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Statistics</b>
Good knowledge	114	52.8	Mean = 6.8 Median = 7 Mode = 6 SD = 2.4, Range = 2 – 10
Poor knowledge	102	47.2	
<b>Total</b>	<b>216</b>	<b>100.0</b>	

**4.1.5 Perceived susceptibility to HIV infection**

In term of personal perceived of susceptibility to HIV infection, less than half of female sex workers felt they had “not at risk” (42.1%) or “do not know” (46.3%) of becoming infected with HIV. Only 11.6% of the respondents thought that they were at risk of acquiring HIV when they worked as sex workers (Table 4.6).

**Table 4.6 Percentage distribution of the CSWs by perceived susceptibility to HIV infection**

<b>Perceived susceptibility to HIV infection</b>	<b>Frequency</b>	<b>Percentage</b>
Not at risk	91	42.1
At risk	25	11.6
Do not know	100	46.3
<b>Total</b>	<b>216</b>	<b>100.0</b>

**4.1.6 Sexual relationship**

About 46% of sexually active women had had their first sexual intercourse at 17 years of age and younger. The average age at first sexual intercourse was 19 years old (SD ±7.8, range 16-25). The median number of all types of sexual partners during the last month (casual partner and regular partner) was 9, and 69.4 % of these women had more than 5 sexual partners during the last month (Table 4.7).

**Table 4.7 Percentage distribution of the CSWs by sexual relationship**

<b>Sexual relationship</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Statistics Values</b>
<b>Age at first sexual intercourse</b>			Mean = 18.8
16-17	99	45.8	Median = 18
18-19	71	32.9	Mode = 17
20-25	46	21.3	SD = 7.8
			Range = 16 – 25
<b>Number of sexual partners last month</b>			Mean = 10.6
1-5	66	30.6	Median = 8.5
6-10	58	26.9	Mode = 8
11-20	77	35.6	SD = 7.5
21-60	15	6.9	Range = 1 – 60
<b>Number of casual partners last month</b>			Mean = 8.5
1 – 7	114	52.8	Median = 7
8-15	73	33.8	Mode = 2
16-20	18	8.3	SD = 6.8
21-50	11	5.1	Range = 1 – 50
<b>Number of regular partners last month</b>			Mean = 1.9
0 – 1	130	60.2	Median = 1
2- 5	61	28.3	Mode = 0
6-10	23	10.6	SD = 2.6
11-15	2	0.9	Range = 0 – 15
<b>Total of each characteristics</b>	<b>216</b>	<b>100.0</b>	

#### 4.1.7 Level of condom use

From Table 4.8, during the last sexual intercourse, the levels of condom use with casual partners, and regular partners of the respondents were 86.6% and 29.2% respectively.

**Table 4.8 Percentage distribution of the CSWs by level of condom use**

<b>Level of condom use</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Condom use with casual partner last sexual intercourse</b>		
Yes	187	86.6
No	29	13.3
<b>Condom use with regular partner last sexual intercourse</b>		
Yes	63	29.2
No	153	70.8
<b>Condom use with casual partner last month</b>		
Consistent	89	41.2
Inconsistent	127	58.8
<b>Condom use with regular partner last month</b>		
Consistent	25	11.6
Inconsistent	191	88.4
<b>Condom use with lovers/husband</b>		
Consistent	5	2.3
Inconsistent	211	97.7
<b>Total of each characteristics</b>	<b>216</b>	<b>100.0</b>

Regarding to condom use during the last month when they engaged in sexual intercourse with their clients, only 41.2% of the CSWs reported they always used condom with casual partners. More seriously, the CSWs used condom consistently less frequently with their regular partners (11.6%) or lovers/husband (2.3%) (Table 4.8), future increasing the chance for spreading HIV to the wider community.

A reexamination of HIV seroconversion study in USA suggests that inconsistent condom users were 10 to 20 times more likely to become infected when exposed to the virus than consistent condom users (Pinkerton and Abramson, 1997). So the risk of contracting HIV of CSWs in this study is probably very high.

## 4.2 Factors influencing consistent condom use of CSW

Socio-demographic factors, knowledge on HIV/AIDS, perceived susceptibility to HIV infection, number of sexual partner, and alcohol consumption were analysed for their association with condom use with casual partners during the last month (Table 4.9).

**Table 4.9 Logistic regression analysis of factors related to condom use**

Independent variables	Regression coefficient	Odds ratio
<b>Age</b>		
Aged group 20-24 vs. < 20 years old	0.76	2.1
≥ 25 years old vs. < 20 years old	1.53	4.6 **
<b>Education</b>		
High school vs. secondary school	0.25	1.28
<b>Marital status</b>		
Married vs. single	0.23	1.26
<b>Duration of work</b>		
≥ 2 years vs. ≤ 1 year	-0.17	0.84
<b>HIV/AIDS knowledge</b>		
Good knowledge vs. poor knowledge	-0.58	0.56
<b>Perceived susceptibility to HIV infection</b>		
At risk vs. not at risk	1.49	4.43**
Do not know vs. not at risk	1.50	4.46***
<b>Alcohol consumption</b>		
Drink vs. do not drink	-0.59	0.55
<b>Numbers of casual partners last month</b>		
≥ 8 sexual partners vs. ≤ 7 sexual partners	1.15	3.16***
Constants	-1.34	0.26*

\* p < 0.05    \*\* p < 0.01    \*\*\* p < 0.001

Among socio-demographic variables, only age group of over 24 years old was significantly associated with consistent condom use. This means female sex workers who were over 24 years old were 4.6 times more likely than those under 20 years old

to be consistent condom users. But aged group between 20-24 did not have significant effect on consistent condom use. So it is difficult to conclude that the age factor influence consistent condom use of the CSWs. The other variables such as education, marital status, and duration of work were not correlated with consistent condom use of the CSWs. These results suggest that change of risky behavior to HIV infection is not depend on socio-demographic characteristics but might be involving with other factors.

While controlling by other variables, HIV/AIDS knowledge factor was not significantly associated with consistent condom use. This finding is similar to other studies in Nigeria, Philippine (Rossem et al., 1999; Wong et al., 1999). They suggest that there are additional factors involving other than HIV/AIDS knowledge. Moreover, a study in Cambodia (Wong et al., 2003) found that the disconnection between HIV knowledge and sexual behavior was explained by negotiation skills, which influenced consistent condom use. Because lack of negotiation skills, therefore CSWs could not persuade their clients to use condom even they had a good HIV/AIDS knowledge.

Alcohol consumption factor also did not have a significant effect on consistent condom use of the CSWs. It may be explained that in this study, alcohol drinking group does not reflect that they are alcoholism, and there is no suggestion that whether they drank alcohol before having sex with their clients or not or perhaps alcohol consumption of clients is more likely to effect condom use than CSWs consumption.

One psychosocial factor was tested for associated with condom use. Perceived susceptibility to HIV infection was significantly related to consistent condom use ( $p < 0.01$ ). Women who thought they were at risk to get HIV infection were 4.4 times more likely to consisting in condom use than those thought they were not at risk to get HIV infection. This result is similar to the findings in other studies in Indonesia, Panama City, Nigeria, and Korea (Ford et al., 2000; Carrington and Betts, 2001; Rossem et al., 1999; Sohn and Jin, 1999).

However, the CSWs who answered they “do not know” their risk to get HIV infection also were 4.5 times more likely to use condom consistently than those thought they were “not at risk”. One possible interpretation is that even they answered

they do not know their risk but actually they felt they were at risk so they were more likely to use condom consistently than the CSWs who thought they were not at risk.

Number of casual partners in the last month had an effect on consistent condom use at high level of confidence ( $p < 0.001$ ). Female sex workers who had more than 7 sexual partners were 3 times more likely to use condom consistently than those had 7 sexual partners and lower. Because those sex workers who had less than 8 partners they had few clients, so they probably did not put demands on their clients to use condoms for fear of losing them.

In sum, among five factors were stated which influence consistent condom use of the CSWs in the hypothesis, only number of sexual partners and perceived susceptibility to HIV infection factors are supported by the finding of this study. The other factors do not have any significant effect on consistent condom use.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

This study aims to determine factors influencing consistent condom use among CSWs in Quang Ninh province. Data used in this study came from “The HIV Second Generation Surveillance in Quang Ninh Province”. 216 cases were analysed. Descriptive statistics and binary logistic regression were employed to describe the general characteristics of the karaoke girls and to determine factors influencing consistent condom use.

#### **5.1 Conclusion**

The majority of the CSWs were young (< 25 years old), single, and came from other provinces. Nearly two-thirds of the CSWs completed secondary school or lower and only one-third of them graduated high school. Because of the low educational level, it was difficult for them to find an appropriate job before they got into the sex trade. In addition, the main reason drove young girls got into sex work was “in need of money” so it is not easy to persuade them to change their current job. More than half of the karaoke girls were working as sex workers about one year before survey and a quarter of them had done this job in other province before moving to Quang Ninh province. This reflects that the CSWs are mobile group. Due to the HIV/AIDS program does not have any record of their moving, therefore it is difficult to keep track of them.

Most of the CSWs knew two main HIV preventive measures were using condom and clean syringe. One-fifth and one-third of them still misunderstood that “prevent mosquito to bite” or “don't contact with AIDS patient” can prevent HIV/AIDS. Only about one-eighth of the CSWs believed that they were at risk of being infected by HIV and many of them did not use condom. It might reflect that their knowledge is insufficient in order to realize their risky job. It is possible to those who answered they were “not at risk” maybe they used condom so they did not think they were at risk.

About four-fifths of the CSWs had first sexual intercourse when they were teenagers. The median number of sexual partners of CSWs was nine during the last month. Using condom was still remarkably uncommon among the female sex workers: nearly three-fifths of them did not use condom consistently with casual partner, most of them did not always use condom with their regular partners and almost CSWs did not use condom consistently with their husband/lovers at all.

The logistic regression analysis shows that consistent condom use of the CSWs depended on perceived susceptibility to HIV infection, and number of sexual partners. The results indicate that consistent condom use was 4 times more likely among those who thought they were at risk to get HIV infection and was 3 times more likely among those who had more than 7 sexual partners.

HIV/AIDS knowledge and other factors were not correlated with consistent condom use of the CSWs. According to Health Belief Model (ReCAPP, 2004), in order to practice safe sexual behavior such as use condoms for HIV prevention, each people must combine correct knowledge of HIV/AIDS and the effect of condom use with their risk perception to get HIV infection if they do not use condoms. In this study HIV/AIDS knowledge had no effect on consistent condom use maybe because HIV/AIDS knowledge of the CSWs was insufficient to change their risky behavior. On the other hand, some researchers found that the influence of negotiation skills of the CSWs (the ability to persuade their client to use condom) (Wong et al., 2003) is stronger than HIV/AIDS knowledge. So HIV/AIDS knowledge is not enough, educational program should further disseminate information to empowering CSWs with negotiation skills.

## **5.2 Recommendation**

### **5.2.1 Recommendation for HIV/AIDS program**

Although HIV/AIDS knowledge had no effect on consistent condom use in this study, findings from previous studies suggest that HIV/AIDS knowledge had positive effect on consistent condom use (Ford et al., 2000; Habib et al., 2001). On the other hand, knowledge of the CSWs was insufficient in order to realize their risky job, therefore it is necessary to provide accurate information to CSWs about HIV/AIDS/STI and safe sex. The IEC program also should educate them how to

convince their clients to use condoms and how to use condom correctly from the very beginning of their jobs. In line with this, the IEC program should continuously increase the knowledge on HIV/AIDS among general population especially Vietnamese young generation. The chance of using condom could be increased if people understand the need for, and then they might practice safe sex to protect themselves.

As mentioned above, the knowledge should disseminate through different channels: mass media, IEC campaign, special training course for CSWs etc. However, if entertainment establishments always have good relationships with CSWs, the CSWs involving in educational program as peer educators is also considered as an effective communication method. Those activities should be conducted continuously.

Policy on condom use in entertainment establishments also is an important factor for encouraging CSWs to use condom (Moreno and Kerrigan, 2000). This result can apply to Vietnamese context, where the pilot program on condom promotion in entertainment establishments has just implemented recently. Condom promotion program should continuously obtain the support from the owners of entertainment establishments as well as local authorities and other stakeholders, and expand to the other provinces.

The finding from this study shows that perceived susceptibility to HIV infection was a predictor for condom use. So condom promotion program for CSWs could increase their awareness of risk to get HIV infection and convince the CSWs that if they always use condom, they will not be exposed to the infection.

Based on the finding from a study among CSWs in Thailand (Koetsawang and Ford, 1993) that the consistent condom users had a higher sense of self-esteem (perceiving of their positive future) than the inconsistent condom users; Koetsawang and Ford, (1997) suggest “The most positive effects of the intervention appear to be in enhancing the CSWs sense of self-worth and self- esteem”. CSWs in Vietnam are considered as “social evil”; so many CSWs get stress when they work as sex workers. They want to quit their job if they could find other works or save enough money for their personal purposes. It is suggested that condom promotion program should encourage the CSWs to think about their future and provide them with skills to get better jobs (e.g. tailoring, cooking), they will have chance to leave their risky job. So

increase in self-esteem and perceived personal future of the CSWs may enhance their safe sex behaviors.

### **5.2.2 Recommendation for education program**

Most of the CSWs had first sexual intercourse when they were teenagers, therefore the knowledge on reproductive health for teenagers should disseminate through different channels: curriculum from the beginning of secondary school, their parents, peer education (teenagers talk to teenagers), mass media etc. In case of teenager's girls having sex with their boyfriends or because of personal reasons, few of them being CSWs, the probability of practicing safe sex such as using condom might increase if they have basic knowledge on reproductive health from very beginning of teenager's age.

### **5.2.3 Recommendation for further study**

Further study should include some interest variables such as reasons for condom non-use, improper condom use, negotiation skills, perceiving of their future, and condom policy, and combine qualitative and quantitative research in order to understand better the influencing factors for condom use. This would help in designing better intervention program for increasing consistent condom use among CSWs.

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## **BIOGRAPHY**

<b>FULL NAME</b>	Nguyen Thi Minh Tam
<b>DATE OF BIRTH</b>	27 <sup>th</sup> , October 1971
<b>PLACE OF BIRTH</b>	Vietnam
<b>INSTITUTION ATTENDED</b>	Medical Doctor Hanoi Medical University, Vietnam 1994  Master of Arts Population and Reproductive Health Research Mahidol University, Thailand 2004
<b>FELLOWSHIP</b>	World Health Organization
<b>POSITION</b>	Medical Officer General Department of Preventive Medicine and HIV/AIDS Control, Ministry of Health. Hanoi, Vietnam Email address: minhtam71@yahoo.com Phone: 84-4-8460133