CHAPTER II

LITERATURE REVIEW

I- GLOBAL SITUATION OF STD/HIV EPIDEMIC

Sexually transmitted diseases (STDs) are very common. The most widely known are gonorrhea, syphilis and AIDS (HIV infection), but there are more than 20 others. According to current WHO estimates, there are more than 333 million new cases of curable STDs every year throughout the world. One million new infections occur every day or more than 40000 cases per hour. About 170 million cases are due to trichomoniasis, 89 million cases due to chlamydia infection, 62 million cases due to gonorrhoea and 12 million cases due to syphilis. STD trends vary in different parts of the world, being more common in developing countries.

Geographically, South and South East Asia is the worst affected region with 150 million cases, followed by sub-Saharan Africa (65 million), Latin America and the Caribbean (36 million), East Asia and Pacific (23 million), Eastern Europe and Central Asia (18 million), Western Europe (16 million), North America (14 million), North Africa and Middle East (10 million) and Australia (10 million) (WHO, 1998).

STDs are more common in urban areas than in rural areas. In urban areas, there are more men than women [(11)], more economic instability, poverty and deterioration of health and social services, leading to risky sexual behaviors. STD/HIV rates are high among young adults, 15-29 years of age, because of lack of easy access to STD services and condoms and because of frequent and multiple sexual partners. A large number of people with STD, particularly women, are asymptomatic (80% reported by WHO) leading to difficulty in their recognition, although asymptomatic infection too can cause complications and long term sequelae. In addition many studies show that sexually transmitted diseases increase the risk of HIV transmission (WHO in 1992). Despite medical advances, STDs continue to pose a threat to health and welfare individuals. Therefore sexually transmitted diseases constitute a major health problem in the world.

II- PROBLEM STATEMENT

In Cambodia, the prevalence of STD/HIV is very high. However, STD epidemiological information is still scarce, making it more difficult to understand the nature and trend of the STD epidemic. Many STD care seekers go to traditional healers or pharmacies for treatment. There are several reasons why there is only limited epidemiological information on STDs. For example, the health information system is not strong enough to cover all STD care services, especially the STD services outside the public health system, i.e. the private sector. Also, cultural and social norms contribute to limit STD reporting to the public health sector. Many patients prefer to turn to private care providers thinking that they will find more confidentiality with them. Cambodia is hard hit by the severe HIV/AIDS epidemic. The first HIV case in Cambodia was detected in 1991. Since then, the HIV prevalence rate has increased dramatically among people at risk, especially among sex workers. The HIV sentinel surveillance (HSS) conducted by National Center for HIV/AIDS Dermatology and STD (NCHADS) in 1998 showed the prevalence of 19.1% in direct sex workers, 6.1% among police and 3.2% among women visiting in antenatal clinics. As for brothel-based female sex workers, this prevalence changed from 38% in 1995 to 40.9% in 1996, 39.3%in 1997, 42.6% in 1998, 33.6% in 1999 and 31.1% in 2000. It is estimated that 3.7% of populations aged 15-49 were infected with HIV in 1998, corresponding to 180, 000 HIV infected and 7107 AIDS cases. This estimate put Cambodia in the worst situation of HIV spread in the Asia Pacific region.

The sexually transmitted disease (STD) situation in Cambodia is also marked by high prevalence among sex workers and their clients compared to women of the general population. In the study by Ryan CA. in three locations [12], 22.4% 0f sex workers had Chlamydia infection, 35% had gonorrhea, 14% were syphilis sero-reactive, and 5.4% had trichomoniasis. Among men, 2.1% had chlamydial, 17% had gonorrhoea and 6.6% were syphilis sero-active. As for women seeking care at reproductive health clinics, 3.1% were infected with Chlamydial infection, 3.0% had gonorrhoea, 4.0% were syphilis sero-active and 1% had trichomoniasis.

The major route of HIV transmission in Cambodia is heterosexual contact, especially through the use of brothels or entertainment places by males away from their families, without the protection of using a condom in every sexual act. Starting among

high-risk groups, such as brothel based and entertainment-based sex workers, the virus has been passed to low risk groups as such housewives, with married clients of sex workers acting as the bridge group for HIV transmission.

There are many factors contributing to the rapid spread of HIV in Cambodia, but the major ones are poverty (around 36% of Cambodian population lives below poverty line), and low literacy rates, especially among girls. Only 30% of girls aged over 15 years attend school, which means there are few opportunities for them to look for professional, skilled jobs. Employment options for unskilled persons are extremely scarce. There is a great deal of internal migration for work as many men and women leave their home for better employment prospects and income support for their families. Rural men migrate to urban centers in dry season to work on construction projects. The risks for young women of starting to work in entertainment places or brothels if their virginity is taken by their boyfriends, by sexual violence or they are sold by their parents or relatives are increasing sexual trafficking, exploitation, violence, high illiteracy rates, drugs use. Moreover a history of conflict, gender inequity and the low socio economic status women, migratory population and work pattern, high STD prevalence and flourishing commercial sex industry are key contributing factors to the magnitude of epidemic in Cambodia.

Recent surveillance data also indicates that the epidemic is moving from northwest provinces to the more densely populated central and Southern Provinces and that the prevalence of STD/HIV infection in rural areas is increasing. Recent change in social norms regarding male behavior are growing up around party celebrations (including wedding parties, religious parties, national and international holidays etc.) in today's Cambodia, increasing their vulnerability to HIV/STD transmission. At those parties young men meet their friends and then, as a group, go on either directly to a brothel or to entertainment places to have fun and sex before returning home. These factors can lead to risky sexual behavior typified by multiple sexual partners, use of commercial sex establishments and unprotected sex. The risk of transmission to their family members may also be increased, due to risk behavior and unsafe sexual practice among men, which lead to STD/HIV infection, were identified as important factors for rapid HIV/AIDS epidemic.

Furthermore, the HIV epidemic is still largely concentrated in female sex workers and their clients. With effective management being both complex and costly, the National Center for HIV/AIDS, STD and Dermatology decided to focus on STD care and control by interventions in these population groups.

III - CONCEPTUAL FRAMEWORK

Based on the theoretical framework and problem statement, a conceptual framework for effects of interventions to reduce risk of STDs in female sex workers was designed in order to provide precise objectives for the study, and these can be elaborated as socioeconomic factors, behavior factors and others factors such as: poor quality of health care services, lack of symptoms, alternative health provider and social stigma. The interventions of sexually transmitted diseases, health education, STD care services for sex workers and 100% condom use would reduce the prevalence of STD/HIV among female commercial sex workers.

1. Relevant Factors

1.1 Gender issue

Cambodia has clear-cut notions of male–female gender differentiation, gender-specific behaviors, and gender-specific work and domestic roles. Traditional Cambodian cultural beliefs portray women's place as in the home and, regardless of statistics that demonstrate that a considerable portion of the household income derives from women's work,(22) the work women undertake outside the home is not as valued as that undertaken by men. Marriage and domestic labor are viewed as the primary goals for girls, and young girls are often removed from school to care for younger siblings and help with household and agricultural tasks.

There is a strong double standard of behavior for men and women, and this is particularly pronounced during the period of adolescence. Adolescent girls are expected to uphold the virtue and honor of their family by taking care of their reputation and maintaining not only their actual virginity but also their imputed sexual reputation.(23) However, no such strictures are placed on males; their virginity at marriage is not an issue and it is expected that they will seek out multiple partners both prior to and after marriage because they have irrepressible sexual needs. The adage "men are gold,

women are cloth," which suggests that when soiled through their actions men can easily be cleaned but women can never be completely cleaned, illustrates the Cambodian belief about the fundamentally differing natures of male and females. Poverty and gender inequality also foster the need for some women to turn to commercial sex as a means of survival.

Women in Cambodia have low social and economic status and are discouraged through cultural norms and pressure from being knowledgeable about sexual matters. Women traditionally are seen as the "giver" or "creator" of STD while men "get" Syphilis. It appears, however, that the cultural tradition of young women being chaste before marriage is changing. Teenage women now have boyfriends and some have engaged in sexual intercourse. If financial resources of the family are limited for school fees, boys are generally educated while girls are taken out of from school. Adolescent girls may be sold into sex work to support families. In addition, women often have little control over how they have sex, when, with whom, and under what circumstances. They are often unable to protect themselves, even if they want to. Some women may have access to condoms, for example, but cannot get men to use them. Gender barriers also affect men. For example, a man may feel that he needs to have mistresses or girlfriends to be considered masculine by his peers.

1.2 Age

Most young people begin having sexual intercourse during their teenage years. The World Health Organization has estimated that 100 million people worldwide have sexual intercourse daily. This sexual activity results in nearly one million conceptions and about 350,000 cases of sexually transmitted diseases. Worldwide, one out of twenty teenagers and young adults contract a sexually transmitted disease each year [(24)]. Current data suggest that slightly more than half of females and nearly two-third of males have had intercourse by their 18 years. In the last several decades there have been substantial increases in the proportion of adolescents who report sexual activity at each year of age. Increases have been greatest among females especially among young females. Thus more than twice as many females age 14 – 15, and 16 are sexually active now, compared with young women of the same age just 15years ago [(25)].

Moreover, on average, there are seven years for females and ten years for men between first intercourse and first marriage.

Initial sexual intercourse experiences are usually important (and sometimes defining) event in the lives of young people. Early timing of sexual initiation is important for two reasons. First, the younger the age of first sexual intercourse, the more likely that the experience was coercive, and forced sexual intercourse, the greater risk of sexually transmitted infections. This is because those two begin having sex at young ages are generally exposed to risk for a long time, are less likely to use condom, generally have more sexual partners, and tend to engage in higher sexual behaviors such as alcohol or drug use prior to sexual intercourse and having multiple concurrent sexual partners. It must be recognized as well that early intercourse is frequently not voluntary. Among females, are noted above, the majority of initial sexual experiences that occur at age 16 or younger are non-voluntary. In addition, young people frequently find it difficult to find or take advantage of health services, including contraception and STD services. They also have received inaccurate sex education.

1.3 Religion

Religious practice may influence the adoption and maintenance of safer sexual behavior. Many religions discourage open discussion about sexuality and use of condoms, and this can be a barrier to behavior change (11). This appears to be the case in Cambodia. However, open discussion of sexual matters is better tolerated then previously.

1.4 Cultural Practices

Cultural practices may help or hinder the patient's ability to change behavior. The different in age between a man and a woman at marriage, puberty rites, sexuality, child rearing of values of family and community may all influence behavior. Culture norm in Cambodia discourage access to information and services for safer sexual practice for young people. There is reported reluctance by both parents and teachers for sexual education to be incorporated in curricula. In the Cambodian system of values, it is also not appropriate to talk openly about sexuality (12).

1.5 Poverty, Social distribution and civil unrest

There are many factors contributing to rapid spread of HIV in Cambodia, but the major ones are poverty (around 36% of the Cambodian population lives below the poverty line). Poverty regularly leads to the sale of young girls, who are valued less than boy children, into the urban sex industry by parents or other relatives. There is a high level of rape of girls younger than 12, as well as a high level of rape of teenage girls as a means of forcing male demands for marriage.(27) LICHARDO, an NGO working with human rights, noted that 26.3 percent of the cases they investigated in 2000 involved rape and indecent assault, of which 61.7 percent were cases with child victims (younger than 18).(28) In marriage, there is also a high level of marital violence, which is possibly related to wider patterns of violence in Cambodian society and high levels of male alcohol consumption, although to date this issue has not been comprehensively studied.(29) Recent interview research sponsored by the Ministry of Women's and Veteran's Affairs (MOWVA) found that 16 percent of the women surveyed had experienced domestic violence; approximately one-half of these women had been injured as a result.(30)

The recent *Cambodia: Demographic and Health Survey 2000* found that 16.3 percent of 15–19 years old ever-married women had experienced beatings or other physical mistreatment since age 15.(31) Once married, the workload of women increases to include responsibilities for child care, household labor, food production, agricultural labor, and contributing to family finances through activities such as petty trading. Within marriage, women experience a considerable lack of autonomy. They rarely have the final say on any marital decision making except about daily household purchases. Only 37 percent of women make decisions about their own health care; 52.5 percent make such decisions jointly with their husbands.(32) In the case of health care for ill children, mothers have the final say in only 21 percent of cases and decisions are made jointly in 74.5 percent of the cases.(33) Decisions about whether a woman should work to earn money are least likely to be made by the woman alone (9 percent).(34) In marriage, much of men's lives continue as before; they work, drink and gamble with friends, and visit brothels and karaoke bars for the entertainment and sexual variety they claim to need. Circumstances beyond their control may push women and girls or

boys into trading sex for money, food or even survival. Women may be pressured into having multiple sex partners in order to support themselves and their children.

1.6 Migration of workers

A feature of contemporary Cambodian society is a high level of migration from rural areas to urban areas and border areas in search of employment. Such migration includes the circular migration of young (and older) men who travel to Phnom Penh following the rice harvest; they go in search of wage labor in the "off" season and undertake temporary one-way migration for relatively long-term work in factories. The young men in the former group are of concern because a combination of cash in their pockets and a fascination with the commercial sex attractions of the big city, along with a likely limited knowledge of HIV/AIDS, renders them vulnerable to contracting HIV. However, the category of migrant workers of most concern is that of young people who migrate from rural areas to Phnom Penh to work in the factories of the garment industry. Estimates suggest that approximately 140,000 young people, the majority of whom are young women, work in about 65 factories.

The women working in this industry are in their late teens and early twenties, likely to be separated from their protective family networks for the first time, and not "streetwise." Although their wages are extremely low (averaging US$40 per month or less), as factory workers living in the big city, these young workers' can leave behind the rustic rural areas (even while they live in dormitories or shared rooms) and participate in the modernity of the big city with its permanent electricity supply, markets, and the many entertainments. Even though most remit a considerable portion of their wage earnings to families in rural areas, for the first time in their life they have money in their pocket and the ability to buy new clothing and cheap cosmetics. Their desire to "experience modernity" (part of which may be the freedom to associate with young men) in concert with urban men's beliefs that such country girls are likely to be free of disease, and men's offerings of money or gifts, and a limited knowledge of how to protect themselves from HIV/AIDS makes these young women highly vulnerable to contracting STD/HIV [35].

An additional vulnerability of migrant adolescent women is that factory wages are not only low, but they are also frequently "docked" for infringements of various

rules. Such docking, which may reduce a workers' monthly wages by more than one-third, in concert with financial demands from rural families who come to depend upon remittances from migrant daughters, often causes young women to cycle between their chosen factory work (which cannot fulfill their perceived financial obligations to their families) and short-term sex work in direct brothels of karaoke bars.[(36)] Their limited knowledge about their own basic physiology and HIV/AIDS protection that rendered them "at risk" in the factory environment renders them doubly at risk in the sex work industry. Moreover, recent work focusing on young sex workers ages 14–17 suggests that because of issues such as shame and not identifying themselves as sex workers, they do not participate in the many AIDS risk-reduction programs offered to sex workers.[(37)]

Migration may become not only a contributing factor to spread of HIV/STD epidemic, but also a consequence, as deaths within a family, loss of land or unemployment force survivors to seek a livelihood elsewhere. Despite both posing a risk, and simultaneously being at risk, migrant workers in Cambodia have largely been ignored. They have fallen into the gap of not being at home for organizations working in the village, and yet they are also not a stationary entity long enough to be the focus of attention in their work. As a result, the migrant worker returns, bringing with them STD/HIV.

1.7 Illiteracy

Levels of educational achievement in Cambodia are extremely low. The Cambodia Demographic and Health survey 2000 states, "Survey result show that the majority of Cambodians have a little or no education and females are considerably less educated than male" [(38)]. Among 15-19 years-olds, 18.7 percent of females and 11.1 percent of males have no education. In the same age group 47.4 percent of male and 49 percent of females have some primary education but 10.9 percent of males, compared with 9.1 percent of females, complete primary education. Boys and girls have similar enrollment rates until age 10. Then as a noted above, girls tend to be pulled out of school to work within household. From this age onward they start falling behind boy, by age 15, the male school enrollment is 50 percent greater than the female enrollment.[41]The withdrawal of girls from school is partly to utilize their domestic labor

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and as many analysts point out, due to a traditional belief that education is a little use to women. Yet, other issues such as physical access to schools (a typical rural household lives about 40 minutes away from a school) and fears about the safety (rape or abduction) of adolescent daughters who walk to school may also significant.

The people, who are illiterate, always have less access to information and misunderstanding of some events. They cannot read, so they can get information on the television, radio. Unfortunately, Cambodia faces a big challenge on broadcasting the information through the whole country. It is very hard to get the message on television or radio in the rural areas. Another problem of illiterate people can not find a good job but can only find low paying work. High income for women can be earned only in the sex trade. According to the worldwide survey "in a comparison between illiteracy and literacy, illiteracy has higher HIV/AIDS prevalence than literacy".

1.8 Sexual behaviors

Many behavioral factors may affect the chance of getting infected with and STD/HIV during sexual intercourse. Behaviors that increase the chance of infection are call risky. Risky behaviors make it more likely that a person will come in to contact with an individual infected with an STD. The risk is increased if a condom is not used while having penetrative vaginal or anal intercourse. Personal sexual behaviors that are risky include: changing of sexual partner frequently, having more than one sexual partner or having sex with casual partners , sex workers or their clients, previous STD infection in the past year, exchanging sex for money, good, or favors, exchanging sex drugs for drugs or drugs for sex, and using vaginal drying agents. Recent or frequent change of sexual partner, having more than one sexual partner or sex with sex workers or their clients make it more likely that a person will become into contact with someone who has an STD/HIV. If a person has had an STD in the past year, they may be at risk from getting infected in the same way before if they have not been able to change their behaviors. Exchanging sex for money characterizes a wide rang of different people, includes those who call themselves sex workers (or prostitutes) as well as the people who purchase sex from them (customers or clients).

It may also include people who do not call themselves sex workers but who may be giving or receiving something of value in exchange for sex. This behavior is

risky because these individuals tend to get infected with or transmit STD infections relatively frequently. Use of drying agents refers to wide range of practices. In some areas of the world, women insert herbs or other substances into the vaginal to achieve a dying or tightening effect. This can result in vaginal irritation, which can cause small breaks in the vaginal wall that facilitate STD transmission.

1.9 Alcohol abuse

People who abuse alcohol are more likely to engage in behaviors that place them at risk for contracting HIV/STD. For example, rates of injection drug use are high among alcoholics in treatment [(39, 40)], and increasing levels of alcohol ingestion are associated with greater injection drug–related risk behaviors, including needle sharing. [(41)] A history of heavy alcohol use has been correlated with a lifetime tendency toward high-risk sexual behaviors, including multiple sex partners, unprotected intercourse, sex with high-risk partners (e.g., injection drug users, prostitutes), and the exchange of sex for money or drugs. [(39,42,43)]

There may be many reasons for this association. For example, alcohol can act directly on the brain to reduce inhibitions and diminish risk perception. [(44–45)] However, expectations about alcohol's effects may exert a more powerful influence on alcohol-involved sexual behavior. Studies consistently demonstrate that people who strongly believe that alcohol enhances sexual arousal and performance are more likely to practice risky sex after drinking. [(46–47)] Some people report deliberately using alcohol during sexual encounters to provide an excuse for socially unacceptable behavior or to reduce their conscious awareness of risk. [(48)]

According to McKirnan and colleagues [(47)], this practice may be especially common among men who have sex with men. This finding is consistent with the observation that men who drink prior to or during homosexual contact are more likely than heterosexuals to engage in high-risk sexual practices. [(42, 49-50)]

Finally, the association between drinking levels and high-risk sexual behavior does not imply that alcohol necessarily plays a direct role in such behavior [(45)] or that it causes high-risk behavior on every occasion. [(46–48)] For example, bars and drinking parties serve as convenient social settings for meeting potential sexual partners. [(51, 52)]

In addition, alcohol abuse occurs frequently among people whose lifestyle or personality predisposes them to high-risk behaviors in general. [42, 53] Drinking alcohol is very popular in Cambodia at the present time. Most of Cambodian likes to use alcohol when they have a party, festival or meals. Regular alcohol consumption is high amongst both rural and urban men 18% of men reported drinking more than two times per week (BSS, 1997). Many reasons they think that alcohol can improve their health. In term of health, a little bit alcohol is good. It becomes a big problem when someone takes it excessively. It affects their brain and careless with condom use during intercourse.

1.10 Lack of condom use

Lack of condom use is a main contributing factor to Cambodia's STD/HIV/AIDS epidemic. In Cambodia condoms are not widely used. None of the sex workers can force their clients to use condoms when having sex. On the other hand, most sex workers have low-level education, and this makes them less interested in this issue. Condom use with sex workers in Cambodia is low compared to other countries in region.

According to a survey conducted among the military, police, sex worker, motor taxi drivers, beer promotion girls and low risk men, condom use during commercial sex varies from 29.7 to 64.9 percent [11]. Condom use during non-commercial sex is even lower at between 5 to 23.9 percent. [12] Some people slanderously say that the dissemination of use condoms when having sex is only aims to sell condoms. The reason why people do not use condoms while having sex is because they do not believe in the existence of HIV/AIDS. In addition, they mistake AIDS for syphilis and some even say that it is merely an advertisement to sell condom.

A qualitative study by the National Mother and Child Health center in 1996 found that some Cambodian women fear the plastic of which the condom is believed to be made women are concerned that the frequent rubbing of plastic on the vagina will cause an inflammation or even blisters which will expand to entire womb. Inflammation may degenerate into a cancer because cancer is commonly believed to result form the growth of cells following a chronic inflammation. White discharge is also seen as resulting from the long-term use of condoms irritating the womb. Interviews with Cambodian men, however, have found more usual reasons given for

the reluctance to use condoms "It's not natural to use a condom, because it reduces excitement" and "they do not use condoms because usually before having sex they get themselves drunk, when they get drunk they forgot everything". [11]

1.11 Other factors

There are several factors that affect whether or not people obtain effective treatment for curable STD infections including:

- Knowledge about STD is usually poor: People often have a lot of misinformation or myths about STD

- Many people not know that they have an STD because there are no symptoms, despite being infected

- Delay seeking treatment, hoping that symptoms will go away

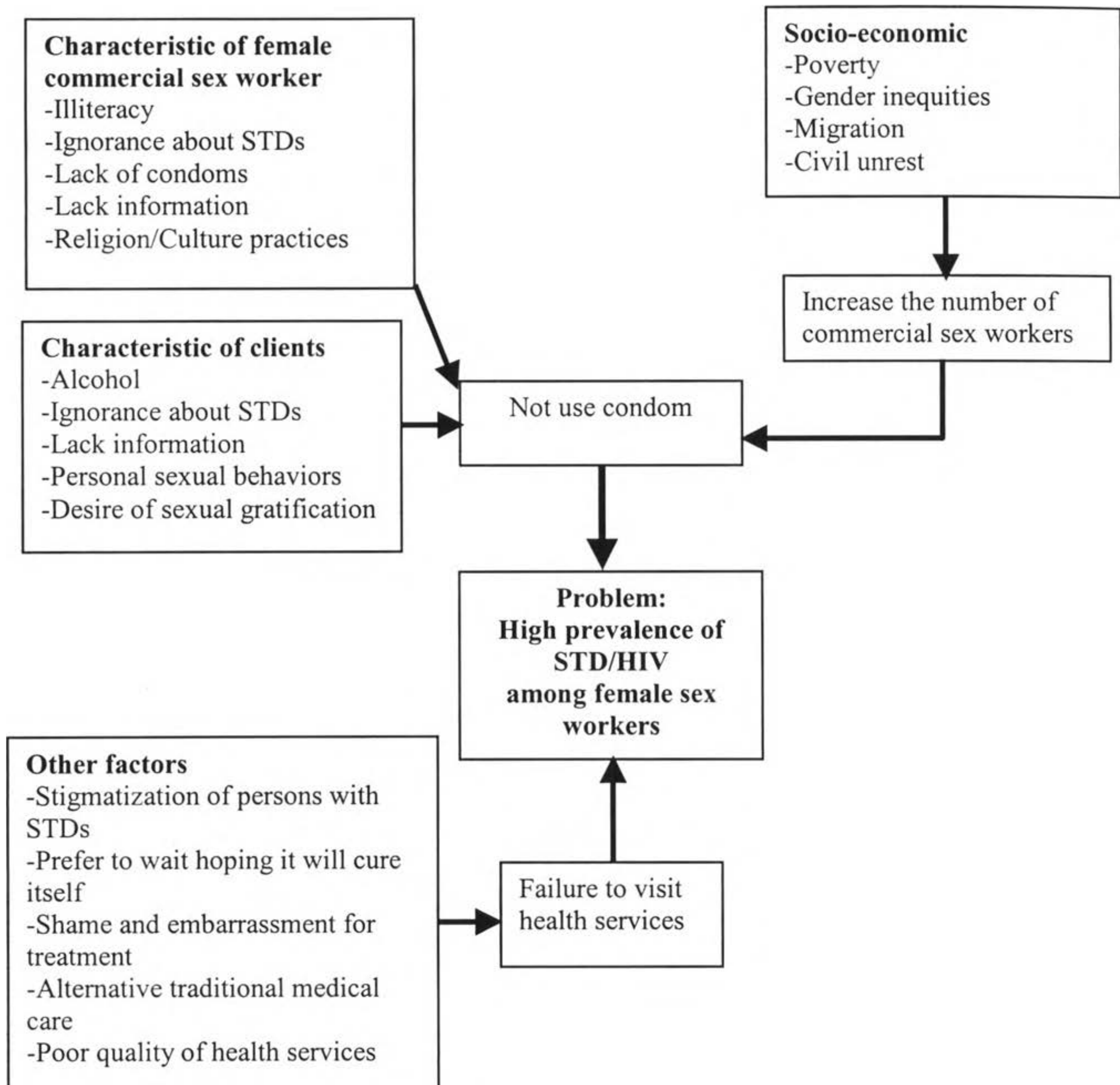
- Treat their own symptoms, using drugs from pharmacies or drug sellers

- People prefer to try alternative health providers such as traditional healer (use traditional medicine)

- Lack of appropriate health facilities, health facilities expensive, and health facilities too far away, do not have effective drugs, or lack equipments,

- Social stigma attached to STDs make people tend to hide what they feel is shameful, and therefore they hesitate to seek treatment.

Conceptual framework of the problem



Conceptual Framework of the interventions