# ANALYZING KNOWLEDGE, ATTITUDE AND PRACTICES ON HIV/AIDS AMONG FEMALE SEX WORKERS

**By**

**Thu Thu Nwe Hlaing**

**THESIS**

Submitted to

KDI School of Public Policy and Management

In partial fulfillment of the requirements

for the degree of

MASTER OF PUBLIC POLICY

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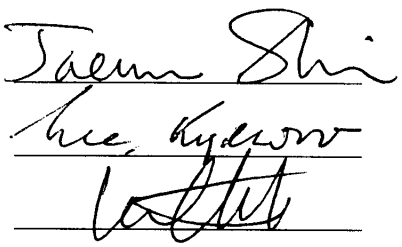

Approval as of October, 2011

## ABSTRACT

HIV/AIDS, being regarded as a disease of modernity (Schoepf, 2001) and a disease of globalization (Barnett & Whiteside, 2002), is a major threat to the development of humankind all over the world. Myanmar ranks third among five most HIV/AIDS burdened countries in South East Asia. As the result, effective HIV prevention methods are necessary in the country, and successful prevention method depends on changing risk behaviors. Although limited studies were done on female sex workers (FSW), one of the most-at-risk population groups, to measure the HIV prevalence among this population, the question of the relation between knowledge and practices of FSW remains unanswered.

This study endeavors to fill that gap by comprehensively analyzing the relationship between knowledge of FSW on HIV/AIDS and their risk behaviors as well as several other factors preventing them from safe sex practices. It was found out that regardless of the high knowledge of HIV transmission methods, lack of condom use within the bonds of marriage and relationships between female sex workers and their regular partners in Myanmar is exposing both male and female partners to HIV and STD risk.

Therefore, it is recommended to strengthen the knowledge of condom use among the population of young girls with no education on HIV/AIDS since they are more likely to practice unsafe sex at their first sexual experience and this would lead to less safe sex practices when they grow old.

**To my mother and father who always protect me with “Mettá” (Loving-kindness) from their hearts…..**

## ACKNOWLEDGEMENT

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Thanks go to all these people for their inputs, however any inadvertent errors or mistakes remain the responsibility of the writer.

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## DEFINITION OF TERMS AND ACRONYMS

| | |
|---|---|
| AFXB | Association François-Xavier Bagnoud |
| AIDS | Acquired Immunodeficiency Syndrome |
| AMI | Aide Medicale Internationale |
| ART | Anti-Retroviral Treatment |
| AVERT | AVERTing HIV |
| AZG | Artsen Zonder Grenzen/Medecins Sans Frontières – Holland |
| CARE | CARE Myanmar, |
| CSW | Commercial Sex Worker |
| FSW | Female Sex Worker |
| HIV | Human Immunodeficiency Virus |
| IDU | Injecting Drug User |
| IFRC | International Federation of Red Cross and Red Crescent Societies |
| INGO | International Non-Governmental Organization |
| JOICEFP | Japanese Organization for International Cooperation in Family Planning |
| KAP | Knowledge, Attitude, and Practice |
| LNGO | Local Non-Governmental Organization |
| MDM | Medecins du Monde |
| MOH | Ministry of Health |
| MRCS | The Myanmar Red Cross |
| MSI | Marie Stopes International |
| MSM | Male Sex Worker |
| NAP | The National AIDS Program |

| | |
|---|---|
| PACT | PACT Myanmar, |
| PLWA | People Living With AIDS |
| PPS | Probability Proportionate to Size |
| PSI | Population Services International |
| PSU | Primary Sampling Units |
| SPSS | Statistical Package for Social Sciences |
| STD | Sexually Transmitted Diseases |
| STI | Sexually Transmitted Infection |
| UCC | United Church of Christ |
| UNAIDS | The Joint United Nations Program on HIV/AIDS |
| UNFPA | United Nations Population Fund |
| UNGASS | United Nations General Assembly Special Session on HIV/AIDS |
| VIF | Variance Inflation Factor |
| WHO | World Health Organization |

Currency conversion rate: 1 USD = 785 kyats (As of 20th November 2011)

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# I. Introduction

## 1. Statement of Problem

According to the latest statistics compiled by UNAIDS (the Joint United Nations Program on HIV/AIDS) at the end of 2007, 5 million people were living with HIV in Asia. Among them, the number of women (aged 15 and over) living with HIV/AIDS in Myanmar is 100,000, which is 42% of the adults living with HIV/AIDS in Myanmar. As a result, Myanmar ranks fourteenth among top 50 countries in terms of HIV/AIDS – adults prevalence rate. Therefore, HIV is a serious health problem in Myanmar and for a developing country; we need to work hard to prevent health issues that are preventing the future development of our country.

The most common HIV transmission modes in Asia, according to AVERT and AIDS (2007) are: 1). Sex work 2). Injecting drug use 3). Men who have sex with men (MSM), and 4). Mother-to-child transmission. AVERT also cited that high level of HIV infection had been found among sex workers and their clients in South East Asian countries and it had been guessed that sex workers and their clients accounted for almost half of the people living with HIV in 2005. As the result, Female Sex Workers (henceforth, FSWs) are regarded as one of the most at-risk–population for HIV transmission in the world. In Myanmar, HIV prevalence among FSW in the capital and second capital of the country; Yangon and Mandalay, was 33% and 53.6% respectively in 2003.

Hence, the government of Myanmar and the local as well as international non-governmental organizations (LNGOs and INGOs), have developed national and organizational strategic plans involving different stakeholders in response to the HIV epidemic. However, until now, the effectiveness of those plans has not been assessed by an outsider, meaning a person or an organization that has not participated in any of their activities.

## 2. Purpose of Study

The primary objective of the study is to measure the knowledge on HIV/AIDS risk perception of female sex workers in Yangon, the capital city of Myanmar. In this research, the interactive perception of FSW on HIV/AIDS as well as their knowledge, attitude and practices concerning HIV will be comprehensively studied.

## 3. Research Question or Hypothesis

This study will seek to determine:

1. Is there a relationship between FSWs' knowledge of HIV and their safe sex practices such as the actual use of condoms?
2. What other factors, besides HIV knowledge, are affecting condom use and how can NGO projects be improved to reduce these factors?

## 4. Delimitations of the Study

The fact that the research was done by an outsider was one of the strengths of this study. In addition, the sample size (n=304) was comprehensive for the hidden population of FSW in a strictly restricted country like Myanmar. Population mapping was also completed before the research started. Hence, the number of sex workers had been chosen proportionately from each sex worker group; Street-based sex workers, brothel-based sex workers and night-club sex workers. Therefore, the sample size in this study represents the proportionate percentage of the real FSW population.

## 5. Limitations of the Study

However, the study still has some limitations itself. Although the research was done by the Compass Research as an outsider, assuring that answers of the FSW would not be expressed

to anybody, some of them were still afraid that their responses would be reported to the policemen. Therefore, they were reluctant to tell the truth when the question concerning harassment from the police had been asked. As the result, the percentage of FSW being harassed by the police could be more than the results mentioned in the report. Furthermore, pimps and police men should also be included for interviews as they are directly involved with FSWs.

## 6. Significance of Thesis

"The HIV/AIDS pandemic presents political, economic, public health, social and scientific challenges to nations worldwide" (Global Health Reporting, 2008). Many countries around the world have been struck by this deadly epidemic in the 20$^{th}$ century and Myanmar is one of the five countries severely affected by HIV/AIDS endemic in South East Asia. In this study, the level of HIV/AIDS knowledge and risk behaviors among female sex workers, one the most-high-risk population in the capital city of Myanmar, Yangon, is broadly analyzed. The results from this study will be useful in measuring the effect of HIV projects implemented by the government, local and international NGOs in reducing the HIV/AIDS-associated morbidity and mortality amongst the high-risk and marginalized population of Sex Workers in Yangon. With these results, it will be able to seek the alternative mechanisms to enhance the knowledge, attitude and practice level of FSW concerning HIV and through this act, the spread of deadly disease threatening the quality of life, life expectancy and after all, the development of humankind, will be reduced and eventually eradicated from the country.

# II. Literature Review

## 1. Introduction

In this section of the study, the historical background of sex work, causes and effects of female sex workers, and stakeholders involved in sex industries will be stated with evidences from the history. Theoretical background of sex work and the results from similar studies will also be thoroughly examined and all these clarifications will go under the following seven sub headings:

1. Prostitution or Sex Work?
2. Studies on the history of female sex workers
3. Females, female sex workers and HIV/AIDS
4. HIV/AIDS knowledge, attitude and practices among FSWs
5. HIV/AIDS in Myanmar
6. Fighting against HIV/AIDS in Myanmar
7. HIV/AIDS among female sex workers in Myanmar

## 2. Prostitution or Sex Work?

Sex work, formerly known as prostitution, exists in every country all over the world, despite the prevalence of different cultures, religions, and perspectives. As the result, prostitution exists in every culture, with sex work being legal or illegal and is regarded as the "oldest profession". Prostitution comes from the Latin work "prostare" meaning "to sell oneself in public". Solon, the Athenian lawgiver (between 640-630 – about 559 B.C) is considered to be the first "organizer" of prostitution business (Bullough), who bought and sold prostitutes in general use. Today, these people are called "Pimps"; men who manages the prostitutes and "Mamasans or Madams"; women who manages the prostitutes. Hence, it can be seen that pimps and mamasans play an important role in the sex industry.

Bullough also stated that prostitutes were called “hump” at the times of Egyptian Pharaohs. However, the term “sex worker” for prostitutes was first brought in by an American sex workers rights activist Carol Leigh. According to Leigh, it was a term invented so that they could have some solidarity. Being a prostitute herself, Leigh wanted to replace degrading, patronizing, or euphemistic terminology about her profession with a phrase that recognized that prostitution, like many other jobs, was simply labor for hire (glbtq, 2008). Nowadays, they are called female sex workers (FSWs) or commercial sex workers (CSWs).

Nevertheless, when it comes to either prostitution or sex work, the majority of the general public regarded those strata of women as the lowest category population in every culture and religion. Taking a glance at Buddhists’ attitude toward prostitution, there have been many controversies that Buddhism being the main religion of the country is the main reason for Thai women to become prostitutes. However, that question was clearly answered by Ven. Chatsumarn Kabilsingh (Ph.D. Samaneri) on Buddha Dhamma Education and Association and Buddha Net. He stated that:

*“Buddhism does not blame women who have to work as prostitutes as their living. But prostitution promotes unwholesome acts both on the parts of men and prostitutes themselves.”*

Buddha gave the same chance for sex workers to enter the right path to practice Dhamma and become enlightened in the same manner as others. It can be seen, when he declined the invitation from Licchavi princes for lunch after he accepted an invitation from Ambapali, a courtesan in those days (Chayabongse, 2008). Given an example in his answer, it was compared between a girl who served sexual service to 30 men for the need of survival and those 30 men who came just for their lustful desire (Ven. Chatsumarn, 2008). Therefore, the simple answer is as long as there are men with lustful desire, there will always be female sex workers.

How about in Christianity? Father Thomas Williams explained that the United Church of Christ's (UCC) welcomes everyone, regardless of their social status such as being black, prostitutes, gay, or handicapped. In his article, Father Thomas stressed what Jesus said:

*"Jesus welcomed prostitutes, but he never welcomed prostitution. He was soft on adulterers, but unyielding on adultery. After forgiving the adulterous woman, in fact, he adds: 'Go and sin no more.'... Jesus never welcomed cheating, but he did welcomed reformed cheater. When Jesus tell the chief priests and elders that 'the tax collectors and the prostitutes are going into the kingdom of God ahead of you' (Matthew 21:31), he is not winking at thievery and prostitution. He is responding, rather, to their willingness to acknowledge their errors and to change."*

One can clearly see the similarity of opinion on female sex workers between Buddhism and Christianity. Both religions pointed out prostitutions as a moral misconduct or sinful act. However, prostitutes or sex workers, who have to sell their bodies for daily survival, are given the same chance as others and welcomed in both religions.

## 3. Studies on the History of Female Sex Workers

However much it is emphasized not to discriminate FSWs, when it comes to their social status, sex workers are usually rejected and stigmatized by the society even in a country where sex work is legalized. According to Dr. Vern L. Bullough, a new girl who joined that kind of service in the middle ages, was given a dreadful punishment such as branding, cutting off the nose, ears, hands, legs and even execution. Even if they happened to get married with some good men, they were prohibited from associating with "honored" women. Nowadays, illegal sex workers can be arrested by the police and sent to jail for months and even years in some countries.

The daughter of an Indian sex worker participated in a virtual reference group in India (Ghose et al., 2008) said that she got proposals from traditional families but she was neglected when they knew her mother was a sex worker. As the result, she ended up marrying the son of a sex worker. This shows that there are still discriminations against FSWs in every country all over the world pushing them further and further from the decent society. It is significant that sex work has come a long way through such a thorny road.

Then, why do these fine women become prostitutes knowing their lowest status in the society? Dr. William Sanger, the first and foremost researcher on prostitution during Victorian era, found that:

*"The majority of prostitutes were in their late teen or early twenties; they were usually illiterate, poor and from broken families. Economic poverty, societal disgrace, and lack of education were also causes of girls turning towards prostitution; they had a limited number of options available to them." (Hickenbottom, 2002)*

The main cause of becoming female sex workers in England in those days thus, is poverty, society disgrace and illiteracy. Similar to this, the reason for the women in Russia to become prostitutes as expressed by M. Kuznetsov (cited by Molotilova L. K., From the history of prostitution. in "From the history of prostitution") was mainly because of social problems:

*"Women without family, homeless and without any possibility for subsistence.... Women, who were deceived by their beloved men… become prostitutes. The majority of women make the first step under the influence of a procuress. Coming to unknown capital, inexperienced women trusting rely on procuresses, who give them a flat and a work, and then … sell …"*

Let's take a look at the history of prostitution in South East Asia. Professor Tagliacozzo, 2008) mentioned that sex work had been in Southeast Asia for a long historical period. Prostitution in traditional practice, according to Tagliacozzo, resulted from poverty, and

Asian culture that women were considered as male property. It boomed in colonial era when the Europeans pushed more and more women into the sex industry.

Additionally, diverse militaries in the region had brought different levels of prostitution in Southeast Asia since the World War II period until its bloom in the 20th century up to now. Tagliacozzo confirmed that sex workers in Southeast Asia were still subjugated by men these days and their bodies were possessed by powerful outsiders (Europeans) even while they were escaping from rural poverty. As the result, South East Asia ranks second (4.2 million adults and children living with HIV) in the world as a place heavily affected by HIV after Sub-Saharan Africa where 22.0 million adults and children living with HIV (UNAIDS/WHO, July 2008).

**Table 1: HIV/AIDS Burden in South-East Asian Countries, 2005 & 2007**

| | Adults & children living with HIV | Adults & children newly infected with HIV | Adult prevalence (15–49) [%] | Adult & child deaths due to AIDS |
|---|---|---|---|---|
| **Sub-Saharan Africa** | **22.0 million** [20.5 – 23.6 million] | **1.9 million** [1.6 – 2.1 million] | **5.0%** [4.6% – 5.4%] | **1.5 million** [1.3 – 1.7 million] |
| **Middle East & North Africa** | **380 000** [280 000 – 510 000] | **40 000** [20 000 – 66 000] | **0.3%** [0.2% – 0.4%] | **27 000** [20 000 – 35 000] |
| **South and South-East Asia** | **4.2 million** [3.5 – 5.3 million] | **330 000** [150 000 – 590 000] | **0.3%** [0.2% – 0.4%] | **340 000** [230 000 – 450 000] |
| **East Asia** | **740 000** [480 000 – 1.1 million] | **52 000** [29 000 – 84 000] | **0.1%** [<0.1% – 0.2%] | **40 000** [24 000 – 63 000] |
| **Latin America** | **1.7 million** [1.5 – 2.1 million] | **140 000** [88 000 – 190 000] | **0.5%** [0.4% – 0.6%] | **63 000** [49 000 – 98 000] |
| **Caribbean** | **230 000** [210 000 – 270 000] | **20 000** [16 000 – 25 000] | **1.1%** [1.0% – 1.2%] | **14 000** [11 000 – 16 000] |
| **Eastern Europe & Central Asia** | **1.5 million** [1.1 – 1.9 million] | **110 000** [67 000 – 180 000] | **0.8%** [0.6% – 1.1%] | **58 000** [41 000 – 88 000] |
| **Western & Central Europe** | **730 000** [580 000 – 1.0 million] | **27 000** [14000 – 49 000] | **0.3%** [0.2% – 0.4%] | **8000** [4800 – 17 000] |
| **North America** | **1.2 million** [760 000 – 2.0 million] | **54 000** [9600 – 130 000] | **0.6%** [0.4% – 1.0%] | **23 000** [9100 – 55 000] |
| **Oceania** | **74 000** [66 000 – 93 000] | **13 000** [ 12 000 – 15 000] | **0.4%** [0.3% – 0.5%] | **1000** [<1000 – 1400] |
| **TOTAL** | **33 million** **[30 – 36 million]** | **2.7 million** **[2.2 – 3.2 million]** | **0.8%** **[0.7% - 0.9%]** | **2.0 million** **[1.8 – 2.3 million]** |

Note: The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information.
Source: UNAIDS/WHO (July, 2008)

## 4. Females, Female Sex Workers and HIV/AIDS

Why should we neglect them for being sex workers? After all they are also human beings with their circumstances in life being different from us. What would happen if those people

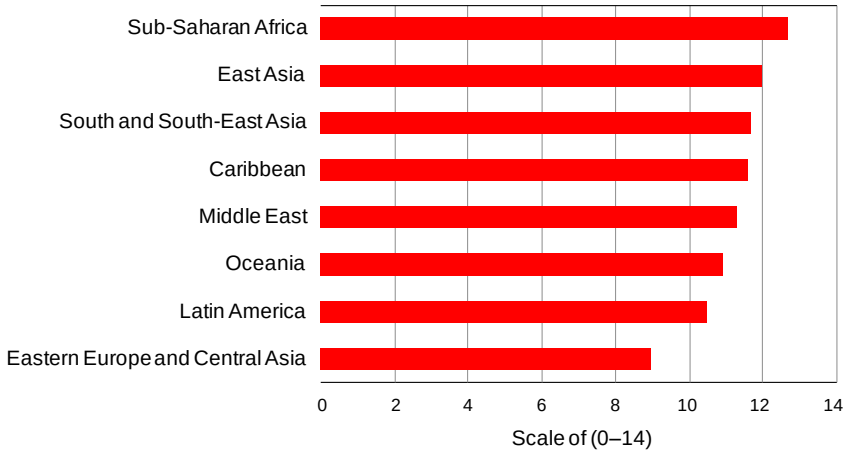
were neglected? Sexually Transmitted Diseases (STD) or STI for Sexually Transmitted Infections and AIDS caused by HIV virus, often refers to as HIV/AIDS are the costs of neglecting one of those high-risk groups; sex workers. Sex work and injecting drug use are among the harmful most harmful activities worldwide (Rekart, Michael, 2005).

Julie J. Taylor (2007) mentioned in her research that: "HIV has been called a disease of modernity (Schoepf, 2001) and a disease of globalization (Barnett & Whiteside, 2002). It has also been labeled a 'disease of development' (Schoepf, 1995; Treichler, 1999)". Why is HIV/AIDS remarked as a 'disease of development'? Because…

*"It is precisely the intractable social topography of recent history that is invoked, the problematic contours of development – environmental devastation, malnutrition, war, social upheaval, poverty, debt, endemic disease, movement toward democracy – now unavoidably illuminated and scrutinized in the international light of the AIDS crisis" (Treichler, 1999, p. 117).*

Hence, HIV/AIDS is not only a problem of oneself alone, but also a problem of a nation, and to be precise, a global problem that each and every human being living on the globe has to solve for the well-beings of society. As the result, HIV/AIDS has become part of the contemporary global landscape (Merson et al., 2008). HIV/AIDS is reported to be vulnerable among women according to UNAIDS; Joint United Nations Programme on HIV/AIDS (Report on the global AIDS epidemic, 2008). The graph mentioning the women's vulnerability of HV according to countries worldwide is cited below. It can be seen the women in South and South-East Asia are the third most vulnerable groups after Sub-Saharan Africa and East Asia.

**Figure 1: Index of Policies related to Women's vulnerability to HIV**




Source: UNGASS Country Progress Reports, 2008

UNAIDS stated that **33** million (33-36 million) people are living with HIV, **2.7** million (2.2 – 3.2 million) people are newly infected with HIV and **2.0** million (1.8 – 2.3 million) people are dead due to HIV around the world in year 2007. It is also mentioned in the report that there are over 7,400 new HIV infections a day in 2007, about 6,300 are in adults aged 15 years and older, of whom: almost 50% are among women and about 45% are among young people (15 – 24).

**Table 2: UNAIDS Global summary of AIDS Epidemic, December 2007**

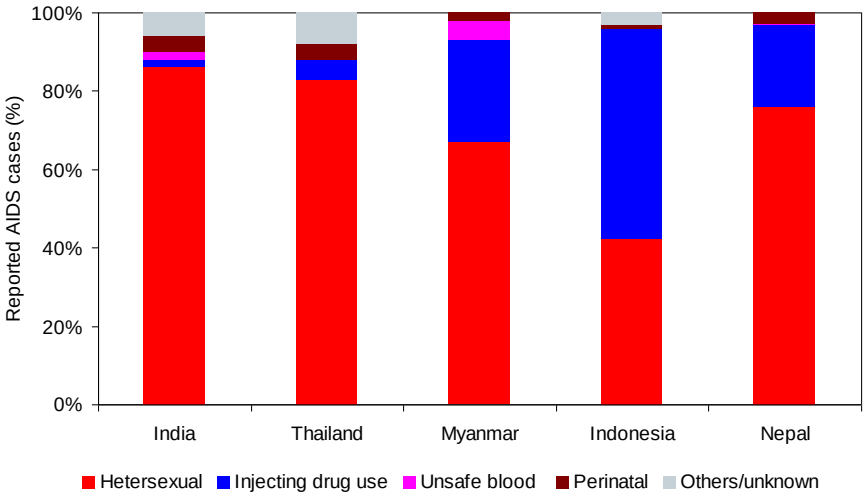
| Global summary of the AIDS epidemic, December 2007 | | |
|---|---|---|
| **Number of people living with HIV in 2007** | Total | 33 million [30 – 36 million] |
| | Adults | 30.8 million [28.2 – 34.0 million] |
| | Women | 15.5 million [14.2 – 16.9 million] |
| | Children under 15 years | 2.0 million [1.9 – 2.3 million] |
| **People newly infected with HIV in 2007** | Total | 2.7 million [2.2 – 3.2 million] |
| | Adults | 2.3 million [1.9 – 2.8 million] |
| | Children under 15 years | 370 000 [330 000 – 410 000] |
| **AIDS deaths in 2007** | Total | 2.0 million [1.8 – 2.3 million] |
| | Adults | 1.8 million [1.6 – 2.1 million] |
| | Children under 15 years | 270 000 [250 000 – 290 000] |

Source: UNAIDS/WHO, 2008

HIV is transmitted mainly via sexual intercourse and a key driver of generalized epidemics is concurrent heterosexual partnerships (Shelton J, 2007). Shelton's principle is even more strengthened when UNAIDS reported the modes of HIV transmission in South-East Asian

countries in 2007; where epidemic in South-East Asia is primarily driven by unsafe sex and injecting drug use.

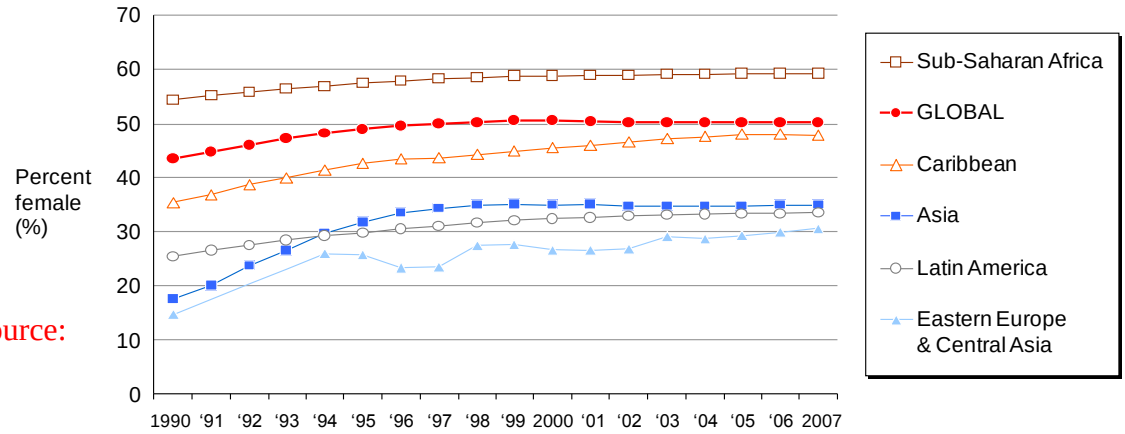
**Figure 2: Index of Policies related to Women's vulnerability to HIV**




Note: Data for Nepal is based on reported HIV infections (cumulative)
Source: UNAIDS, 2007

Among the people living with HIV/AIDS (PLWHA), the percentage of Asian adult females aged 15 and above, infected with HIV ranks third in the globe as stated in the graph below.

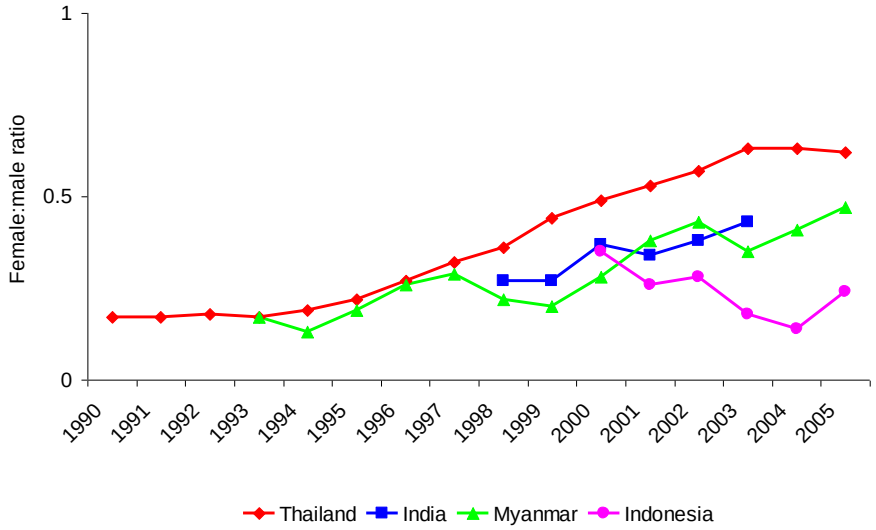
**Figure 3: Percent of adults (15+) living with HIV who are female 1990–2007**




Source:

UNAIDS/WHO, 2008

**Figure 4: Female-to-Male Ratio Amount Reported AIDS Cases in Selected South-East Asian Countries, 1992-2005**




Source: UNAIDS, 2007

There are also research evidences that women are increasingly affected by the deadly disease in South-East Asian countries according to 2007 AIDS epidemic report from UNAIDS. Therefore, females are more prone to be infected with HIV when it comes to gender issues. Even among the women, FSW are regarded as the most variable sub group. The variability of FSW in narratives around HIV/AIDS is confirmed by the WHO (2006), as one the four most-at-risk populations globally for health initiatives with respect to HIV/AIDS, estimating that there are 'tens of millions' of sex workers worldwide, with clients 'in the hundreds of millions'. Regarding this verdict, the key concerns of WHO is the vulnerability and 'rights' of FSW, as well as the causal role they may play in HIV/AIDS transmission to wider population.

Hence, stigma and discrimination against FSWs is an important issue in HIV prevention activities as stigma refers to possession of an 'ascribed' or ontological deficit and deviance to and 'achieved' or moral deficit (Scambler, 2008). Hence, FSWs' opinion on stigma and discrimination against HIV/AIDS is also examined in this study.

## 5. HIV/AIDS Knowledge, Attitude and Practices among FSWs

In many of the studies done on HIV knowledge, attitude and practices (KAP) among FSWs, it is found that they keep on avoiding unsafe sex regardless of their knowledge on HIV/AIDS. Getting a glimpse at similar KAP survey done among 178 sex workers from the main "red lights district" of Belo Horizonte in Brazil (Chacham, Alessandra & Maia Mônica, 1999), they stated that majority of the FSWs were convincingly well-informed with HIV and STD transmission and prevention modes. However, "over 60% of them declared that they never or rarely use condoms with their partners for the reason of being a barrier to intimacy." As the result, the lack of condom use among sex workers with their permanent partners became the main obstacle toward a more efficient prevention of STDs, AIDS and unplanned pregnancies.

Thus, when it comes to condom use among female sex workers with their clients, there are three things to consider; client's wish, their own perception towards condom use and the allowance from brothel owners or pimps. There are stubborn clients who insist on not using condoms. In most of the cases, FSWs confess that if the man does not want to use a condom, he is the one to make the final decision. A 20-year-old cave/bar worker said, "They are the ones to pay the money and we have to obey them" (Tran, Trung et al., 2004).

Again, Tran stressed in his qualitative research that most FSWs were willing to practice unsafe sex for the money especially among street-based sex workers. A 24-year-old street-based FSW confirmed that by saying: "The risk of HIV infection in just one unprotected sex act is low and I can accept that risk for more money". After all, these fine girls become sex workers mainly for the money, in other words because of their economic situation or family crisis. Consequently, most of the FSWs think about money first when comparing with the risks in the real situation.

Plus, there is a variety of prevention methods of greater or lesser effectiveness believed among FSWs, in general situations in which the women are unable or willing to use condoms: the use of antibiotics (anti-inflammatory shot or pill), with or without a prescription, either as a shot received routinely (e.g., after menstruation), or in response to apparent symptoms or discomfort (Weeks, 2007).

Hence, full knowledge on HIV/AIDS cannot stop FSWs from performing unsafe sex practices. There are several barriers preventing FSWs from using condoms with their clients and regular partners despite their level of HIV knowledge. In this study, possible reasons for practicing unsafe sex among FSWs of Yangon will be figured out in quantitative measures.

## 6. HIV/AIDS in Myanmar

Myanmar, the largest country by geographical area in mainland South East Asia, is a country rich in natural resources with population of 47,758,180 (World Bank, 2008) sharing borders with China in north east, India in north west, Laos in the east, Thailand in south east, Bangladesh in the west and Bay of Bengal and Andaman Sea in the south west.

**Figure 5: Map of Myanmar**


Source: World Bank, 2008)

When it comes to HIV prevalence among adults in South East Asia, Myanmar ranks **the third** among five countries namely India, Indonesia, Myanmar, Nepal and Thailand; which account for HIV/AIDS burden in South-East Asia in year 2005 (UNAIDS, 2007). Although HIV prevalence among adults declined from 339,000 in 2005 to 240,000 in 2007, Myanmar is still in the HIV/AIDS burden country list of South-East Asia ranking fourth place as mentioned in the table below.

**Table 3: HIV/AIDS Burden in South-East Asian Countries, 2005 & 2007**

| Country | Adult HIV prevalence (%) | | Estimated number of people living with HIV | |
|---|---|---|---|---|
| | 2005 | 2007 | 2005 | 2007 |
| Bangladesh | <0.1 | <0.1 | 7,500 | 12,000** |
| Bhutan | <0.1 | 0.1 | <500 | <500** |
| DPR Korea | n/a | n/a | n/a | n/a |
| India | 0.36 | 0.3 | 2,500,000 * | 2,400,000 |
| Indonesia | 0.2 | 0.2 | 193,000 * | 270,000 ** |
| Maldives | <0.1 | <0.1 | <100 | <100 |
| Myanmar | 1.3 | **0.7** | 339,000 ** | **240,000** ** |
| Nepal | 0.5 | 0.5 | 70,000 | 70,000 |
| Sri Lanka | <0.1 | <0.1 | 5,000 | 3,800 |
| Thailand | 1.4 | 1.4 | 541,000 | 610,000 |
| Timor-Leste | | n/a | | n/a |

**Source:** WHO/UNAIDS: Country reports, National AIDS Programmes, Ministries of Health

* Data for 2006

** Among persons aged 15-49 years

According to UNAIDS epidemic update in 2007, the effects of AIDS response seemed to be not yet evident among most-at-risk population groups: Female Sex Workers, Injecting Drug Users (IDU) and Men who have Sex with Men (MSM). It was reported that one in three sex workers (34%) in Yangon and Mandalay, almost one in two IDU (43%) in four sides around the country were infected with HIV.

## 7. Fighting Against HIV/AIDS in Myanmar

Since HIV/AIDS is one of the nationally prioritized communicable diseases, (along with Tuberculosis and Malaria) regarded by the Ministry of Health (MOH) in Myanmar, a high level multi-sectoral National AIDS Committee chaired by the minister of Health has been formed in 1989 to oversee the National AIDS Program (NAP) under the guidance of the military government. The general objectives of NAP are to prevent and reduce HIV/AIDS transmission through access to behavioral change communication by adopting a healthy life

style and to enhance the quality of life of the people living with HIV/AIDS through treatment, care and support according to Deputy Minister of Health; H.E. Professor Mya Oo.

National strategic plan on HIV/AIDS 2006-2010 in response to HIV epidemic, was developed in September, 2006 by the NAP. The National Strategic Plan identifies what is required to improve national and local responses, bring partners together to reinforce the effectiveness of all responses, and build more effective management, coordination, monitoring and evaluation mechanisms. As mentioned Deputy Minister in the country statement, the National Strategic Plan includes 6 broad strategic areas, namely:

1) Advocacy to authorities and decision-makers, implementing partners, private sector and community leaders
2) HIV and STI prevention education
3) Targeted interventions including:
    - Prevention of sexual transmission
    - Prevention of HIV infection among injecting drug users
    - Prevention of mother to child transmission
    - Provision of safe blood and blood products
4) Care and treatment of STI patients and PLWA
5) Programme management and support including monitoring and supervision
6) Capacity building

At present, the NAP, representing Ministry of Health, FHAM, UNAIDS, Japanese International Cooperation Agency (JICA), and other donors are working together to bring about tangible results exploring ways and seeking alternatives mechanism for the three diseases – HIV/AIDS, TB and Malaria. Prominent NGOs working with female sex workers

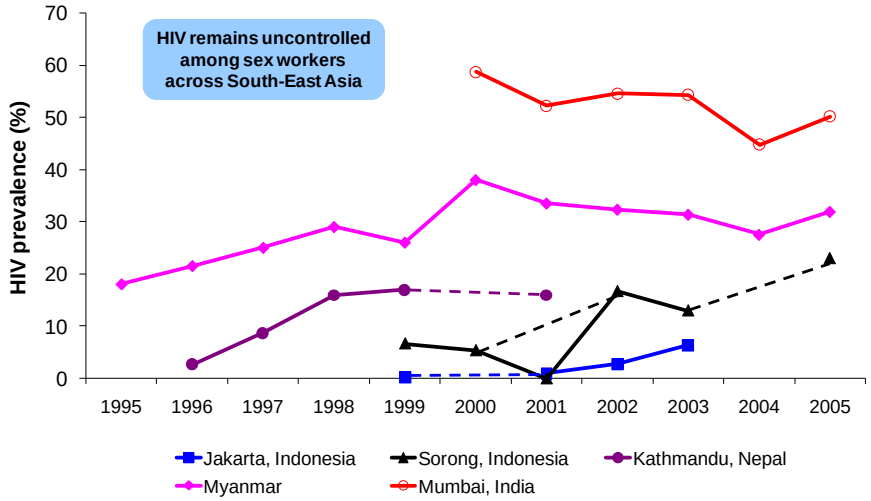
in Myanmar include: Population Services International (PSI), Medecins du Monde (MDM), Artsen Zonder Grenzen/Medecins Sans Frontières – Holland (AZG), Aide Medicale Internationale (AMI), Japanese Organization for International Cooperation in Family Planning (JOICFP), CARE Myanmar, Myanmar Nurses Association, Marie Stopes International (MSI), World Vision Myanmar, International Federation of Red Cross and Red Crescent Societies (IFRC), The Myanmar Red Cross (MRCS), PACT Myanmar, Association François-Xavier Bagnoud (AFXB), and United Nations Population Fund (UNFPA).

Main activities that the organizations perform for FSW population in Myanmar are giving HIV and STI health education, drop-in centers, clinics and mobile clinics services, giving ART to the HIV positive patients, free HIV testing services, and nutritious food distribution. However, the linkage between HIV knowledge and safe sex practices of FSW has not yet been studied among the organizations.

## 8. HIV/AIDS among Female Sex Workers in Myanmar

Despite a decrease of HIV epidemic in Thailand and indication of decreasing HIV prevalence in Myanmar and the Tamil Nadu State of India, HIV prevalence among FSWs in South-East Asia remained uncontrolled as per WHO regional report in 2007. Therefore, HIV/AIDS knowledge, attitude, and practice among female sex workers are essential for HIV prevention activities to be carried out by national government and local as well as international NGOs within the country.

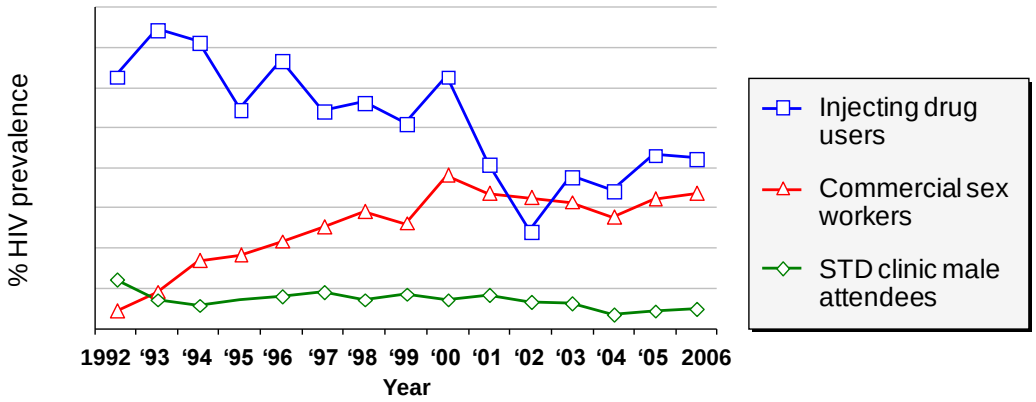
**Figure 6: HIV Prevalence among Female Sex Workers in Selected Countries, South-East Asia, 1995 & 2005**




Note: Data unavailable for some years is reflected by dotted line.
Source: WHO; HIV Epidemics in South-East Asia (July, 2007)

In year 2006, HIV prevalence among FSWs of Myanmar remains unchanged as per the graph mentioned below (UNAIDS/WHO, 2007). The reason for that stability has not yet been found out by any of the organizations in the country. The question depends on knowledge, attitudes and practices concerning HIV/AIDS among FSWs in Myanmar. Do they have sufficient and right HIV knowledge? How are their attitudes towards HIV? Are they practicing safe sex activities according to their knowledge?

**Figure 7: HIV Prevalence among various groups in Myanmar, 1992 & 2006**




Source: Progress of HIV Epidemic in Myanmar, International Congress on AIDS in Asia & the Pacific. Colombo, Sri Lanka, August 2007.

## 9. Conclusion

Hence, in the case of Myanmar, there are so many questions need to be answered but no research has been conducted so far to give satisfactory answers for those questions. For that reason, this study tries to measure the knowledge, attitudes and practices concerning HIV/AIDS among female sex workers in Yangon, the capital city of Myanmar. Almost all of the researches done for FSW in Myanmar, which can be found online or in print, are done nationwide. However, this study is focused mainly on the FSWs in Yangon and their risk perceptions on HIV are thoroughly observed.

# III. Methodologies

## 1. Introduction

The research methods utilized by the researcher will be conveyed precisely in this section. Since there are three types of sex workers: brothel based, street based and night club FSW, with different nature, different sampling strategies were used for specific targets. All those sampling methodologies were adapted from the Behavioral Surveillance Survey (BSS) guidelines for repeated behavioral surveys in populations at risk of HIV by Amon et al., (2000).

Population mapping was done to first estimate the population of FSWs in Yangon, before calculating the sample sizes and conducting interviews. Questionnaires were used to interview FSWs and sample size for all three types of female sex workers was decided proportionately to the mapped population results as: street-based or freelance FSW (n=141), brothel-based FSW (n=58 {brothel (fixed); n=26 and brothel (offpremises/ take-away); n=32}), nightclub based FSW (n=105). Therefore, n=304 FSW were interviewed in total.

This study will cover:

- Demographic of FSWs in Yangon (religion, ethnicity, age, educational level, about their living partners, their household and personal income and expenditure, etc.,)
- Media usage among FSWs
- Sexual history of FSWs
- Sexual behavior of FSWs
- Condom use among FSWs
- STD experience among FSWs
- Knowledge, attitudes and practices in relation to HIV/AIDS among FSWs

- Stigma and discrimination against HIV/AIDS among FSWs
- Alcohol and drug use among FSWs
- Awareness and use of health care services among FSWs
- Future life plan of FSWs

In this research, all the secondary data from a research on HIV/AIDS knowledge, attitude and practices among FSWs conducted for MDM has been used. The fact that the research was done by an outsider, someone who does not take part in any of the HIV/AIDS activities, was one of the strengths of this study. In addition to that, the sample size (n=304) was a comprehensive research for the hidden population such as FSW in a strictly restricted country like Myanmar. Moreover, as a population mapping was completed before the research started, the number of sex workers had been chosen proportionately from each sex worker group; Street-base sex worker, brothel-based sex worker and night-club sex worker representing the real FSW population in Yangon.

## 2. Sampling Methodologies

### 2.1. Brothel Based Sex Workers

As brothel based sex workers mainly live at a brothel in a fixed manner, "Two-Stage Cluster Sampling" method was used as recommended in BSS guidelines. In this Sampling, Primary Sampling Units (PSUs) or clusters (Brothels) were chosen at the first stage of sample selection and individual respondents were chosen from within each of the selected PSU at the second stage.

The list of brothels were used to construct a sampling frame, consisting of the name of the brothel (or some other identifying information about the brothels), the measure of size (number of sex workers working at each brothel) and the cumulative measure of size. Once

the sampling frame was developed, a sample of PSUs was chosen by Systematic Random Sampling. Although average number of sex workers found at each brothel was 4, it was decided that 2 FSW were interviewed at each brothel in order to have wider geographical coverage and to get more representative sample.

### 2.2. Street Based Sex Workers

According to mapping results, nearly half (47.3%) of the freelance sex workers were found to be working on both day and night time. More than one third (39%) of freelance sex workers were working only at night. However, none of the freelance SW appeared to choose to work only on weekday or weekend. Therefore, "Time Location Cluster Sampling" was used to select the required number of sex workers in Yangon since they were "floating".

Time location sampling (Amon et al., 2000) is like conventional cluster sampling but it gets around the problem of floating/mobile populations because clusters are defined by both location and time. Weekdays, weeknights, weekend days and weekend nights were included to draw up time location clusters. A list of stands/sites where commercial sex work is going on is prepared. The sampling frame included both daytime and night-time time-location clusters, as well as clusters on both weekends and weekdays in order to ensure a good distribution of sex workers with different characteristics. Sites/ clusters were included only at times when they are known to be active, based on what was learned in the mapping exercise.

.Example of time location clusters:

Cluster 1=Location 1, Weekday

Cluster 2=Location 1 Week night

Cluster 3=Location 1 Weekend day

Cluster 4=Location 1 Weekend night

Cluster 5=Location 2 Weekday

Cluster 6=Location 3 Week night

Clusters were randomly selected using systematic random sampling. In each selected cluster/ stand, 3 FSW were selected for interview. Cluster size was 3 and it was calculated depending on time location method of mapping results of average number of SW found at each site. The number of clusters and the number of FSW to be interviewed in each cluster are calculated using detailed ethnographic information obtained from ethnographic mapping undertaken in March 2007.

**2.3. Nightclub Sex Workers**

The sampling frame for nightclub sex workers was calculated using PPS; Probability Proportional to Size method. The sampling split in all nightclubs of Yangon was calculated by multiplying the proportionate percentage of total mapped FSW population with required sample size (n=102).

When interviewing the respondents at nightclubs, they were selected for interview according to the sampling interval. Sampling interval was calculated by dividing the number of actual

mapped population at that nightclub with required sample size. If the sampling interval is three, every fourth SW entering the nightclub would be asked to participate in the interview.

When the sex worker agreed, the interview usually took place in a separate room where there was privacy such as a Karaoke room rent by Compass Research in advance. When the respondent was not available for the interview that day, an appointment was scheduled for interview of the day after at their convenient time and venue.

## 3. Project Training and Fieldwork

After the questionnaire was developed and approved by MDM, questionnaire pretesting was carried out on 17th of March, in Yangon with some FSW respondents to examine the terminology used and flow of questionnaire.

Supervisor training was conducted by the project manager[1] on 21st of March 2007 and the training covered sampling methodologies, research objectives, and the content of the questionnaire.

The project manager and field manger have conducted three days of interviewer training and the training covered full questionnaire contents and interview techniques. The most experienced interviewers were selected for this survey and they had been assessed by the field management for their interviewing skills, maturity and positive approach to work. The importance of ensuring respondent confidentiality and privacy during the interviews was stressed in the interviewer training. Supervisors assisted and assessed the interviewers during

[1] The author was the Quantitative Project Manager of this project and involved in all stages of the project; starting from designing the research, developing the questionnaire, conducting the trainings, dealing with the quality control team, data management team and writing the study report.

role play exercises to ensure all interviewers understood the whole questionnaire including the skipping, key questions and completed responses. A representative from MDM had observed the questionnaire pre-testing and interviewer training.

After the training period, field testing was done on 25th of March to test the interviewers and quality control persons' skills in the field with street based sex workers. Feedback section on the field testing was done the next day to address any concerns, mistakes and findings found. The field work for the survey was conducted from 20th to 29th of April 2007.

## 4. Quality Control

A team of quality control officers carried out quality control in the field. Quality control was conducted on 50% of the total questionnaires. Quality control team had randomly selected completed questionnaires and revisited the respondents to validate the interview.

Interviewers' everyday questionnaires were checked by an editor and another supervisor at the end of the day. It included logic check and missing questions (sometimes, interviewers forgot or mistakenly skipped the number of questions) as well as consistency check. When some inconsistent answers or missing questions were found out by them, they asked the quality control officers to find the respondent and ask the questions the next day. The mistakes of the interviewers were shared among the interviewers at the end of the day to prevent further mistakes.

## 5. Data

The data used in this study come from the KAP (Knowledge, Attitude and Practice) survey among FSWs done in March, 2007. Since there are three types of sex workers: brothel based,

street based and night club FSW, with different nature, different sampling strategies were used for specific targets. All those sampling methodologies were adapted from the Behavioral Surveillance Survey (BSS) guidelines for repeated behavioral surveys in populations at risk of HIV by Amon, Joseph et al., 2000.

Population Mapping was done to first estimate the population of FSWs in Yangon, before calculating the sample sizes and conducting interviews. Questionnaires were used to interview FSWs and sample size for all three types of female sex workers was decided proportionately to the mapped population results as: street-based or freelance FSW (n=141), brothel-based FSW (n=58 {brothel (fixed); n=26 and brothel (offpremises/ take-away); n=32}), nightclub based FSW (n=105). Therefore, n=304 FSW were interviewed in total.

## 6. Data Processing

Questionnaires were edited and checked by supervisors and editors during fieldwork. The editors rechecked all questionnaires before coding. The coders followed guidelines produced by the data processing team in order to control possible coding errors. All additional codes necessary to code frames were managed.

Data SPEC was written at the beginning of fieldwork and tested for flow during field-testing. Data entry began after one week of fieldwork in Yangon. Guidelines for keypunchers were produced by the data processing department at the beginning of the data entry. A total of 10% of data entry questionnaires were checked to identify any keypunching errors. Data was checked, cleaned and then exported to SPSS (version 13.0). Again, SPSS data were exported to Stata (version 9) for all the regression analysis.

With all the analytical tools and methodologies mentioned above, this study attempts to prove the most reliable answers toward the knowledge, attitude and risk behaviors among female sex workers in Myanmar.

The results from regression analysis indicated that there was a strong possibility of HIV spread through FSWs with all the variables included in the regression. Although most of the variables included in the regression were statistically significant, some of them were not. Besides, there is a possibility of heteroskedasticity in the model which would probably be because of so many dummy variables and less values with numeric values. Since heteroskedasticity is present, when there is a definitive pattern in the data, it would likely to result in leaving one or more key variables out of the model and the effects of those variables are being captured in the residual values. Therefore, KAP survey with more numerical data included in the questionnaire is recommended for further study.

# IV. Cross Tabulations Analysis

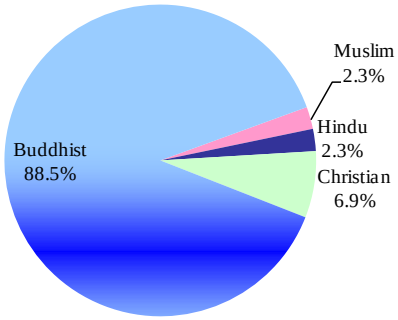
## 4.1. Background Characteristics and Demographics

### 4.1.1. Gender/ Religion and Ethnicity

**Table 4: Type of Sex Workers Participated in the Study**

| Total respondents | Brothel Based FSW | Street Based FSW | Nightclub Based FSW |
|---|---|---|---|
| 304 | 58 | 141 | 105 |

**Figure 8: Religion of Female Sex Workers**




Base n=304

A Knowledge, Attitude and Practice (KAP) survey was conducted with Female Sex Workers (FSW) in Yangon and 304 sex workers participated. Among them, 58 were brothel based sex workers, 141 were street based sex workers and the remaining 105 were from Night Clubs. Most of the sex workers (88.4%) were Buddhists followed by Christians (6.9%), Muslims (2.3%) and (2.3%) Hindus.

In terms of ethnicity, Bamar dominated the study by (69.4%) while the second largest proportion was those of mixed ethnicity (12.5%). The rest included (7.9%) Karen (3%) Indian, and (2.3%) Mon. A small portion of Shan (1.9%), Kachin (1.3%), Chin (0.7%), Rakhine (0.7%) and Chinese (0.3%) also participated in the study.

### 4.1.2. Education and Marital Status

**Table 5: Education level of Female Sex Workers**

| Education Level | Target Group: Brothel based sex worker *n= 58* | Street based sex worker *n=141* | Night club sex worker *n=105* |
|---|---|---|---|
| Primary school | 14.8% | 19.0% | 22.7% | 1.9% |
| Middle school | 57.2% | 69.0% | 61.0% | 45.7% |
| High school & above | 28.0% | 12.1% | 16.3% | 52.4% |

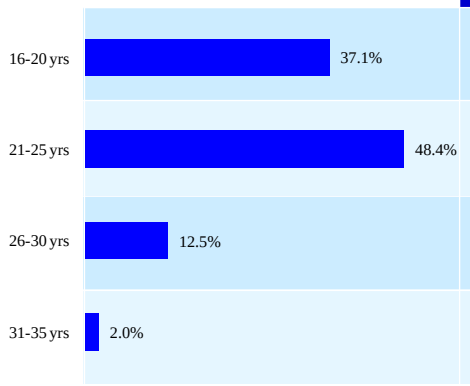
The majority of the sex workers in the study could read and understand a letter or newspaper in Myanmar language easily. However, sex workers were not generally highly educated. Only about one fourth of the sex workers (27.7%) have attained high school and above education. A good proportion (57.2%) of the sex workers has received middle school education. It was apparent from the findings that night club based sex workers were more likely to have a higher education level than the others.

In the study, the majority of the respondents were singles (73.9%) and only some sex workers were currently married. However, the incidence of divorced/ separated among sex workers was significant especially among brothel based sex workers (22.4%).

### 4.1.3. Age of the respondents

**Table 6: Age of Female Sex Workers**

| Age at Last Birthday | Target Group: Brothel based sex worker (n=58) | Street based sex worker (n=141) | Night club sex worker (n=105) |
|---|---|---|---|
| 16-20 yrs | 29.3% | 34.0% | 45.7% |
| 21-25 yrs | 44.8% | 51.1% | 46.7% |
| 26-30 yrs | 22.4% | 12.1% | 7.6% |
| 31-35 yrs | 3.4% | 2.8% | 0.0% |




It appears that sex workers in Yangon are a young population. About one out of three sex workers are 14- 20 years old. The biggest proportion of sex workers in the study are from the age 21- 25. If compared among the target groups, sex workers from night clubs are younger than the others and the older sex workers are more likely to be found in the brothels.

The results indicated that it was not so common to work as sex workers when they became older (over 30 years of age). In the study, none of the night club based sex workers was older than 30.

### 4.1.4. Demographic

## Household Income and Expenditure

**Table 7: Household Income and Expenditure of Female Sex Workers**

| Monthly Household Income | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| <= 50,000 kyats | 5.3% | 12.1% | 6.4% | 0.0% |
| 50,000-100,000 kyats | 41.0% | 58.6% | 51.1% | 17.1% |
| 100,001-150,000 kyats | 25.1% | 15.5% | 31.2% | 21.9% |
| 150,001-200,000 kyats | 13.7% | 12.1% | 8.5% | 21.9% |
| 200,001-250,000 kyats | 3.3% | 1.7% | 2.1% | 5.7% |
| 250,001-300,000 kyats | 2.9% | 0.0% | 0.0% | 8.6% |
| Over 300,000 kyats | 8.7% | 0.0% | 0.7% | 24.8% |

*n=304*

| Daily Household Expenditure | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| <= 4000 kyats | 88.7% | 96.6% | 98.6% | 70.5% |
| 4001-6000 kyats | 7.8% | 3.4% | 0.7% | 20.0% |
| 6001-8000 kyats | 1.6% | 0.0% | 0.0% | 4.8% |
| Over 8000 kyats | 1.9% | 0.0% | 0.7% | 4.8% |

*n=304*

The household income for two-fifths of the total respondents was 50,000 – 100,000 kyats while a quarter of the rest earned 100,001 – 150,000 kyats and 13.7% got 150,001 – 200,000 kyats. Only sex workers from night clubs could earn more household income. Although there were only 8.7% of FSW who had income of over 300,000 kyats, 24.8% of them were from night clubs.

## Personal Income and Expenditure

**Table 8: Personal Income and Expenditure of Female Sex Workers**

| Monthly Personal Income | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| <= 50,000 kyats | 25.2% | 41.4% | 34.8% | 2.9% |
| 50,001-70,000 kyats | 20.5% | 25.9% | 26.2% | 9.5% |
| 70,001-80,000 kyats | 9.6% | 10.3% | 10.6% | 7.6% |
| 80,001-100,000 kyats | 14.8% | 12.1% | 12.1% | 20.0% |
| 100,001-150,000 kyats | 15.4% | 10.3% | 14.2% | 20.0% |
| 150,001-200,000 kyats | 4.9% | 0.0% | 1.4% | 12.4% |
| Over 200,000 kyats | 9.7% | 0.0% | 0.7% | 27.6% |

*n=304*

| Daily Personal Expenditure | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| < 500 kyats | 18.9% | 39.7% | 24.1% | 0.0% |
| 500-1000 kyats | 41.0% | 50.0% | 51.1% | 21.9% |
| 1001-1500 kyats | 11.8% | 5.2% | 12.1% | 15.2% |
| 1501-2000 kyats | 13.1% | 1.7% | 8.5% | 25.7% |
| 2001-2500 kyats | 5.6% | 3.4% | 3.5% | 9.5% |
| 2501-3000 kyats | 4.5% | 0.0% | 0.0% | 13.3% |
| > 3000 kyats | 5.2% | 0.0% | 0.7% | 14.3% |

*n=304*

The monthly personal income of sex workers in Yangon is different among three targets and only night club sex workers could earn higher income. Daily expenditure for the (41.0%) of FSWs was 500 – 1,000 kyats which meant 30,000 kyats per month.

**Table 9: Monthly Personal and Household Income of Female Sex Workers**

| | Monthly Household Income | | | | | | |
|---|---|---|---|---|---|---|---|
| **Monthly Personal Income** | 50,000 kyats | 50,000-100,000 kyats | 100,001-150,000 kyats | 150,001-200,000 kyats | 200,001-250,000 kyats | 250,001-300,000 kyats | Over 300,000 kyats |
| <= 50,000 kyats | 93.8% | 43.7% | 8.0% | 4.8% | 9.9% | 0.0% | 3.7% |
| 50,001-70,000 kyats | 0.0% | 35.5% | 19.7% | 0.0% | 0.0% | 0.0% | 0.0% |
| 70,001-80,000 kyats | 6.2% | 10.4% | 18.4% | 0.0% | 0.0% | 0.0% | 3.8% |
| 80,001-100,000 kyats | 0.0% | 9.6% | 26.3% | 28.6% | 0.0% | 0.0% | 3.7% |
| 100,001-150,000 kyats | 0.0% | 0.0% | 27.6% | 45.4% | 49.9% | 11.1% | 3.7% |
| 150,001-200,000 kyats | 0.0% | 0.0% | 0.0% | 21.2% | 20.4% | 44.4% | 0.0% |
| Over 200,000 kyats | 0.0% | 0.8% | 0.0% | 0.0% | 19.8% | 44.4% | 85.1% |

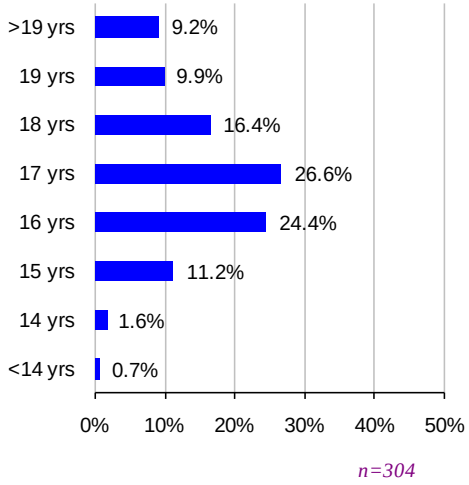
*n=304*

This cross tabulations revealed monthly personal income and household income of all sex workers. From the table, it was discovered that the monthly personal income of sex workers were the major support of their monthly household income. The results also indicated that sex workers were likely to be supporting an average of 3 persons with their income.

## 4.2. Sexual History

### 4.2.1. Age of first Sexual Experience and Commercial Sex Experience

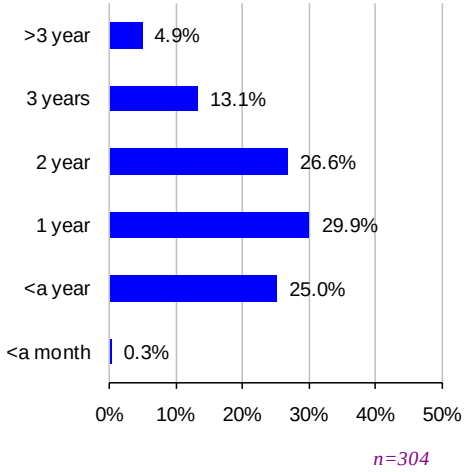
**Figure 9: Age of First Sexual Experience**




According to the study result, the most common age that sex workers had their first sexual experience is between 15 and 17. More than half of sex workers in the study had their first sexual experience during those ages. The likelihood of having their first sexual experience at an earlier age seemed to correlate with their education level and the environment in which they were living. The rate of having the first sexual experience before 16 years old was higher among sex workers with lower education and those sex workers were currently living with co-workers and husband. If compared by their current marital status, married sex workers were more likely to have first sexual experience earlier (before 16) than unmarried SW (52.9% married, 37.3% singles).

In addition, the education level of the sex workers also seemed to have an impact on their married lives. The incidence of divorce and separation is higher among sex workers with low education than sex workers who have a higher education.

**Figure 10: Period of Commercial Sex Experience**

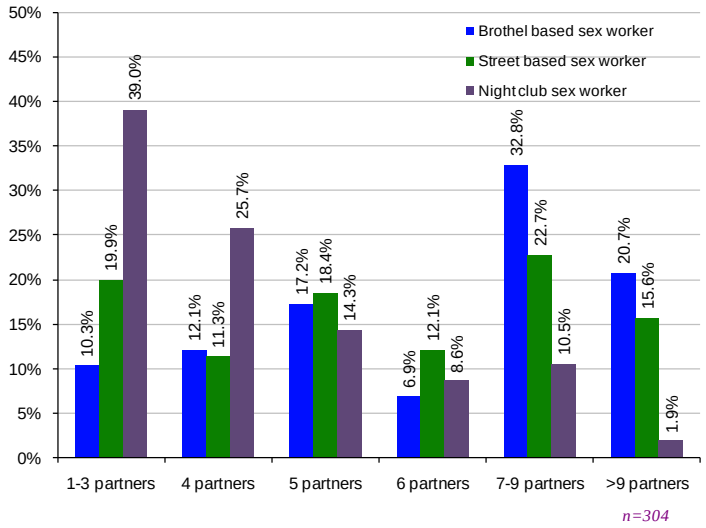



In the study, more than half of the sex workers mentioned that they had been engaged in commercial sex one year or less than a year. Cross tabulation indicated that more of the sex workers with lower education appeared to be involved in commercial sex recently. Among the sex workers with lower education, about one half had said they started having sex for money one year or less than a year ago (46.7% primary education, 23.5% middle education, 17.7% high school and above). Brothel based sex workers were likely to have a longer working period than others. These findings showed that the proportion of sex workers with two years or more than two years of working in commercial sex is higher among the brothel based sex workers than the others (55.2% brothel based SW, 41.8% street based SW, 42.9% night club based SW).

Many of the sex workers appeared to be moving from place to place. Approximately three quarters (74.4%) have been working at the current location less than a year. Regarding with the number of working days per week, about two fifths (41.5%) had mentioned that they worked 7 days a week and it was more so for brothel and street based sex workers. Only a small proportion of sex workers mentioned that they worked less than five days a week.

### 4.2.2. Number of sex partners in the past 7 days

**Figure 11: Number of Sex Partners in the past 7 days**

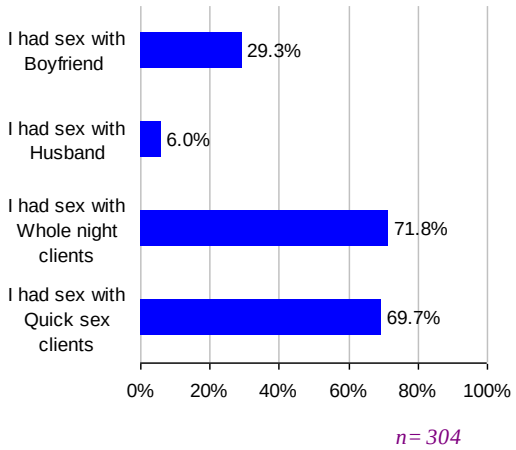



The number of sex partners within the past 7 days was found to be varying according to the establishment sex workers were working at. Generally, brothel based sex workers have more sex partners and night club sex workers have the least number of partners. In other words, night club based sex workers had contact with a lesser number of clients than other sex workers.

It appears that clients prefer to choose the fresher sex workers to have sex with. The cross tabulation indicated that sex workers with a shorter period in the sex industry tended to have more sex partners than others. Interestingly, sex workers with higher levels of education had a lesser number of sex partners if compared with low educated sex workers. It was found that the proportion having more than five partners in the past 7 days gradually decreased when their education got higher (53.3% primary education, 46.1% middle education and 28.4% high school & above).

### 4.2.3. Type of sex partners in the past 7 days

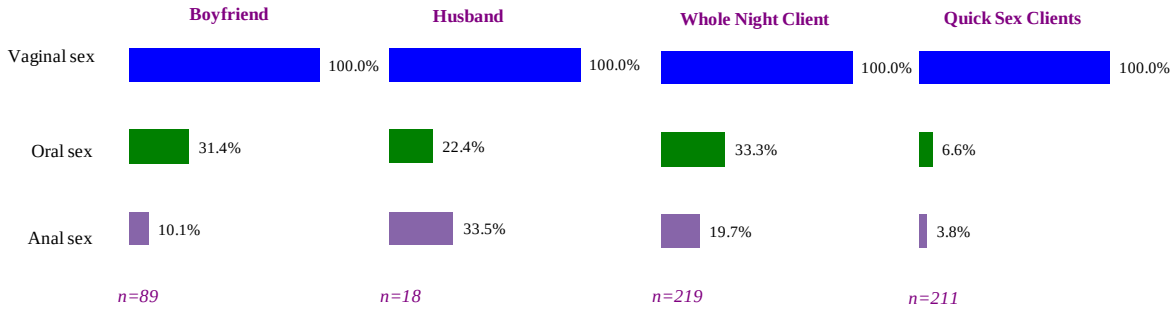
**Figure 12: Type of Sex Partners in the past 7 days**




Since most of the sex workers in the study are single, sex with husband was found among only a small proportion of sex workers. However, slightly more than one quarter of sex workers in the study had mentioned that have had sex with their boyfriends in the past 7 days. When analyzed by their age, the incidence of having sex with boyfriends was higher among the younger sex workers.

For the sex workers in the study, quick sex clients and whole night clients are the most common sex partners with whom they had sex in the past 7 days. Generally, brothel based and street based sex workers tend to have more quick sex clients while night club based sex workers are more likely to have whole night clients. Nearly two fifths (39.0% - 43.1%) of street based and brothel based sex workers didn't have any whole night clients in the past 7 days. On the other hand, over three fifths of night club sex workers (61.0%) didn't have quick sex clients in the past 7 days.

**Figure 13: Type of Sex with different Partners in the past 7 days**




Vaginal sex is the most common type of sex and all sex workers said they had vaginal sex with their partners in the past 7 days. If compared with anal sex, oral sex is more frequent. With their boyfriend and husband, approximately one fifth to one quarter of sex workers had oral sex until ejaculation. With quick sex clients, sex workers appear to have less incidence of oral or anal sex. However, sex workers are more likely to be asked for different types of sex by their whole night clients. Both oral and anal sex incidence were found to be significant with whole night clients. About one third of sex workers had oral sex and one fifth had anal sex with their whole night sex clients.

### 4.2.4. The incidence of unprotected sex

**Figure 14: Incidence of Unprotected Sex with different Sex Partners**

| Type of Sex | Type of Clients | Unprotected Sex | Brothel based FSW | Street based FSW | Night club FSW |
|---|---|---|---|---|---|
| Anal Sex | Boyfriend (n=89) | 77.9% | 100% | 83.3% | 50.0% |
| | Husband (n=6) | 100.0% | | | |
| | Whole Night Clients (n=43) | 18.7% | 16.7% | 26.3% | 11.1% |
| | Quick Sex Clients (n=8) | 12.3% | | | |
| Vaginal Sex | Boyfriend (n=89) | 57.4% | 81.2% | 60.4% | 36.0% |
| | Husband (n=18) | 83.6% | 100% | 92.3% | 33.3% |
| | Whole Night Clients (n=219) | 10.6% | 18.2% | 16.3% | 3.0% |
| | Quick Sex Clients (n=211) | 9.0% | 6.2% | 10.7% | 7.3% |
| Oral Sex | Boyfriend (n=89) | 61.4% | 100% | 86.7% | 18.2% |
| | Husband (n=4) | 100.0% | | | |
| | Whole Night Clients (n=73) | 63.3% | 85.7% | 85.2% | 34.% |
| | Quick Sex Clients (n=14) | 57.7% | | | |

**(a)**

**Unprotected Anal sex**

The majority of sex workers in the study perceive that anal sex is more risky than vaginal sex. Generally, the incidence of anal sex is low. With whole night clients, about one third of sex workers had anal sex and only a few had anal sex with their quick sex clients. Among them, 12-18% of anal sex with their clients was unprotected. However, with boyfriends and husbands, most of the anal sex was unprotected.

**(b) Unprotected Vaginal Sex**

The majority of sex workers appeared to use condoms consistently in vaginal sex with their clients. Generally, the incidence of consistent condom use is higher among the night club based sex workers if compared with others. In terms of unprotected sex, about one out of six brothel or street based sex workers had vaginal sex without a condom with their whole night

clients in the past 7 days. It was found that the unprotected sex tends to happen more with whole night clients than with quick sex clients.

However, consistent condom use with boyfriend and husband is quite low. More than one half of the vaginal sex with boyfriends was reported as unprotected.

**(c) Unprotected Oral sex**

Oral sex is more common than anal sex. With boyfriend, husbands or whole night clients, approximately one quarter to one third of sex workers have had oral sex until ejaculation. About three fifths of oral sex with boyfriends and clients were unprotected. But only a few (3.8%) sex workers had oral sex with their quick sex clients. Again if compared, the incidence of unprotected oral sex tended to be higher in brothel and street based than night club based sex workers. Naturally, oral sex with husbands was unprotected.

### 4.2.5. Condom use with last client

**Figure 15: Use of condom with last client**

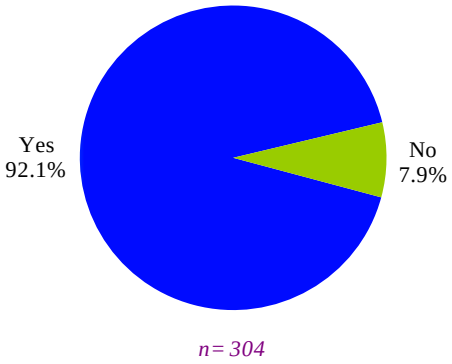



**Table 10: Percentage of Unprotected sex among last clients**

| Last clients | Unprotected Sex % |
|---|---|
| Businessman | 8.6 |
| Man in the uniform | 0.0 |
| Other official | 0.0 |
| Seaman | 0.0 |
| Manual worker | 6.5 |
| Transport worker | 17.7 |
| Student | 4.0 |
| Foreigner | 10.0 |
| | *n= 304* |

During sexual intercourse with their last client, only a small proportion of sex workers didn't use a condom. For them, the main reason for not using condom was because the "clients objected" or the "client did not like condoms". The result also indicated unprotected sex is more significant with transport workers.

The cross tabulation indicated that consistent condom use tended to happen more with: 1) those sex workers who are confident of their condom negotiation skills, 2)willing to persuade their clients to use condoms, and 3) not being embarrassed to buy condoms. In addition, those sex workers held more confidence in handling the situation when the police found them with condoms. On the other hand, the belief of "insisting on condom use will cause sex worker lose the client" was found more among the sex workers who did not use a condom with the last client.

The result also indicated that those sex workers who did not use condoms with their last client were more likely to perceive themselves at risk of contracting HIV than others. However, there was no strong correlation between the longer working period in commercial sex and the likelihood of condom use in the last commercial sex.

In the study, sex workers were asked about the condom they used in their last sexual experience and the following table showed their answers.

**Table 11: Places where FSWs got Condoms at Last Sex**

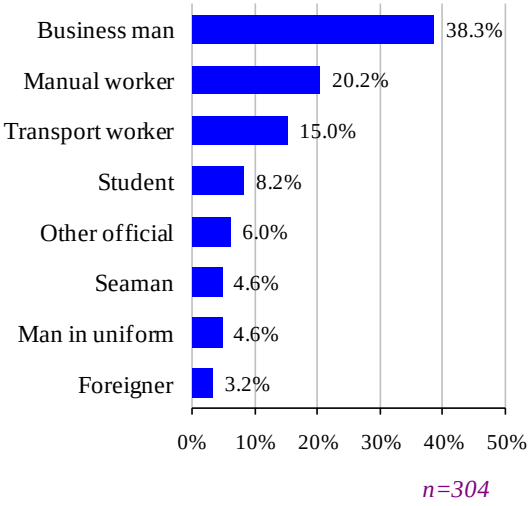
| Places where condom come from | | Brothel based sex worker | Street based sex worker | Night club sex worker |
|---|---|---|---|---|
| Client had condom with him | 50.0% | 26.9% | 56.6% | 53.5% |
| I had condom with me | 21.1% | 19.2% | 20.9% | 22.2% |
| Buy from guesthouse | 17.9% | 11.5% | 18.6% | 20.2% |
| Client got condom from pimp/ brothel | 9.3% | 42.3% | 1.6% | 2.0% |
| Buy from betal net shop | 1.4% | 0.0% | 2.3% | 1.0% |
| From waiter | 0.4% | 0.0% | 0.0% | 1.0% |

*n=280*

Getting condoms for sex seemed to be more of the responsibility of the men (clients) than the sex workers. One half of the sex workers said the condom they used in the last commercial sex was brought by their clients. Keeping condoms or carrying condoms with them is still low for sex workers in the study. The results showed that only about one out of five sex workers had a condom with them during their sex with last clients.

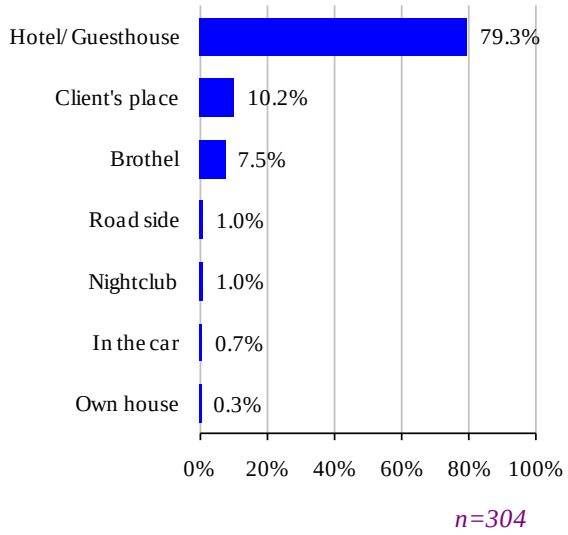
As sexual intercourse with clients mostly happened in guesthouses, buying condoms from there is also significant. However, more of the condoms used during the sex in brothel appear to come from the pimps.

**Figure 16: Types of Last Sex Partners**



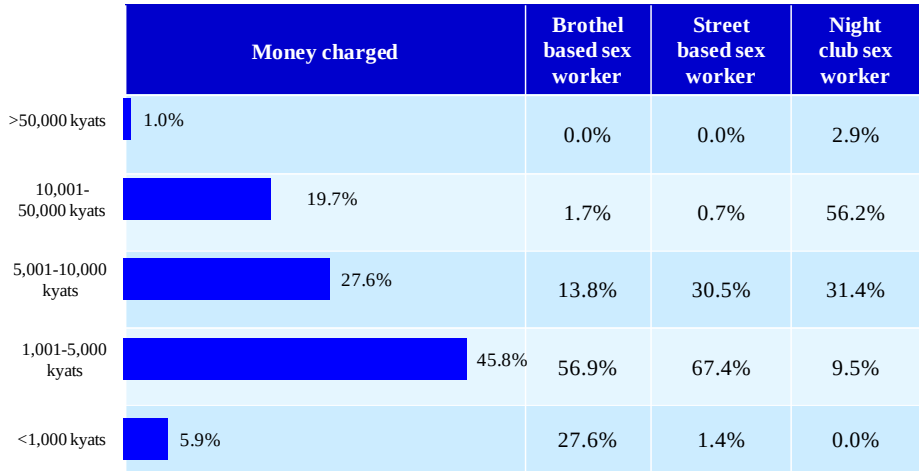

Businessman, manual workers and transport workers are the most mentioned type of clients for sex workers in the study. Cross tabulation indicated that sex workers with lower education are more likely to mention that their last client was a manual or transport worker. The incidence of mentioning those type of partners became lower when sex worker's education become higher (62.2% primary education, 40.4% middle education, 9.6% high school and above). The incidence of mentioning a businessman as their last client was the highest with night club based sex workers whereas foreigners were mentioned only by night club based sex workers.

**Figure 17: Road Side where FSWs had their Last Sex**




Hotels/ guesthouses are the main place where most of the sex workers had sex with their clients. In the study, about four out of five sex workers revealed that they had sex with their last client in guesthouse/ hotel. It could be said that guesthouses are used by many different type of clients as a place to have sex with sex workers. However, the brothel is used more by manual workers. Cross tabulation showed that approximately one half of the incidence of sex in brothel was with the manual workers. Nevertheless, the likelihood of using a condom was not found to be influenced by the chosen locations where they had sex.

**Table 12: Money charged to the Last Client**




*n=304*

The amount of money they got for sex varies according to the establishment they worked in. Generally, brothel based sex workers are the least paid while night club based sex workers received higher pay. In the study, a little more than one quarter of brothel sex workers said they charged less than 1,000 kyats to their last client. On the other hand, one half of the night club based sex workers changed more than 10,000 in the last time.

### 4.2.6. The Incidence of group sex and experience of harassment

In terms of harassment, only a small proportion of sex workers had experienced harassment from the police in the past 30 days (10.3%). Nonpayment for sex or taking money and possessions was the most common type of harassment they encountered.

Some (17.1%) of the sex workers had group sex in the past 7 days and the likelihood of condom use in last sex was also influenced by the involvement of group sex. The incidence of not using condom is higher when they have been involved in group sex (11.5 % of those who had group sex did not use condom at their last sex whereas among the FSWs who did not experience group sex, only 7.1% had unsafe sex practice at their last sex).

The cross tabulation results indicated that sex workers who didn't use a condom in the last sexual experience appeared to know more of the sex worker friends who had died of AIDS or who were currently infected with HIV (14.8% with those who didn't use a condom, 7.2% with those who used a condom in their last sexual experience). Sex workers who used a condom in their last sexual experience were more likely to think that AIDS was a serious problem in the community than others who had not used condoms (63.2% condom users and 45.8% non-condom users in the last sex).

## 4.3. Experience of Sexually Transmitted Infections

**Table 13: STI Incidence among Female Sex Workers**

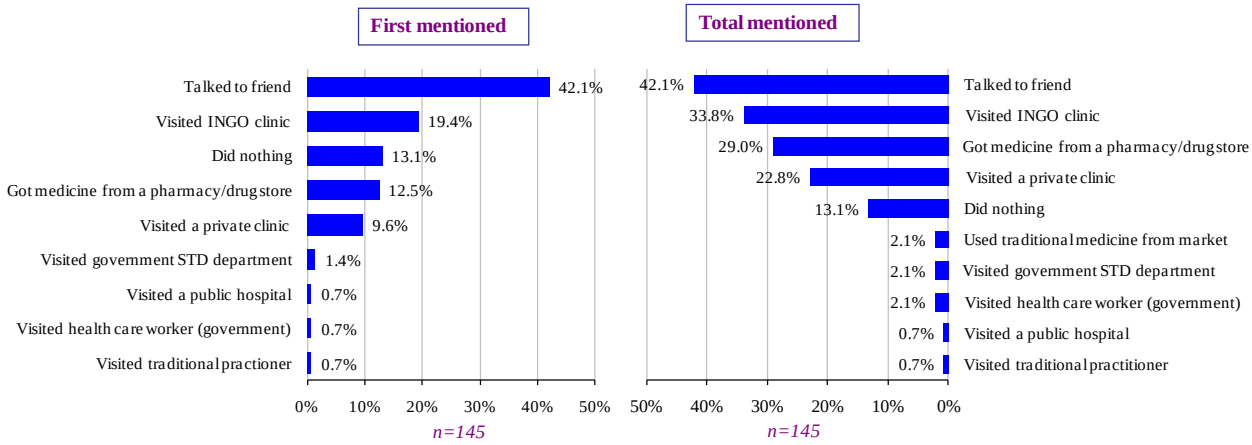
| STI Experience | Target Group: Total | Brothel based sex worker | Street based sex worker | Night club sex worker |
|---|---|---|---|---|
| Have ever had STI symptoms *n=304* | 47.8% | 56.9% | 49.6% | 40.0% |
| Have had STI symptoms in the past 12 months *n=145* | 32.5% | 42.4% | 32.9% | 23.8% |

The survey results indicated that STI prevalence was significant among the sex workers. Almost half of the sex workers in the study had experienced STI symptoms in the past. Some (15.5%) of the sex workers had suffered STI in the past 12 months and the incidence was higher among the brothel based sex workers.

The education level of sex workers also has an impact on the STI prevalence as the result indicated that sex workers with higher education had less STI incidence than those with lower education.

### 4.3.1. Seeking for STI Treatment

**Figure 18: Places FSWs went for Treatment the last time they had STI Symptoms**




In order to know their response to STI, those sex workers who had experienced STI symptoms were asked what they did when they got STI symptoms. The most common thing they did was they talked to their friends first when they noticed the symptoms. Only about one third went for clinical treatment in the first place.

Of those sex workers who first talked to their friends for suggestion when they suffered STI symptoms, the majority went to seek proper clinical treatment in the end. However, about one third (39.4%) were recommended to buy medicine from the pharmacy and get self treatment.

In general, it could be said that about three fifths (62.2%) of the sex workers have sought treatment for STI from health facilities and many of them chose INGO clinics more for the treatment.

For those who tried to get medicine from a pharmacy or drug store in the first place, more than half of them (61.2%) were likely to have the disease cured since they did not go anywhere after that. However, 22.1% of them still visited private clinics and 11.2% visited government health care workers even after they had taken medicine from a pharmacy.

### 4.3.2. INGO clinic visited for STI treatment

According to the total mentioned results, almost one-third (33.8%) of those sex workers who had suffered STI went to INGO clinic for STI treatment. It was apparent that street based sex workers took the STI treatment from INGO clinics more than the other groups surveyed (46.9%- street based sex workers, 28.6%- night club sex workers and 24.5%- brothel based sex workers). The names of INGO clinics where they went to seek for treatment were also recorded in the questionnaire forms and the table below showed the names of the organizations.

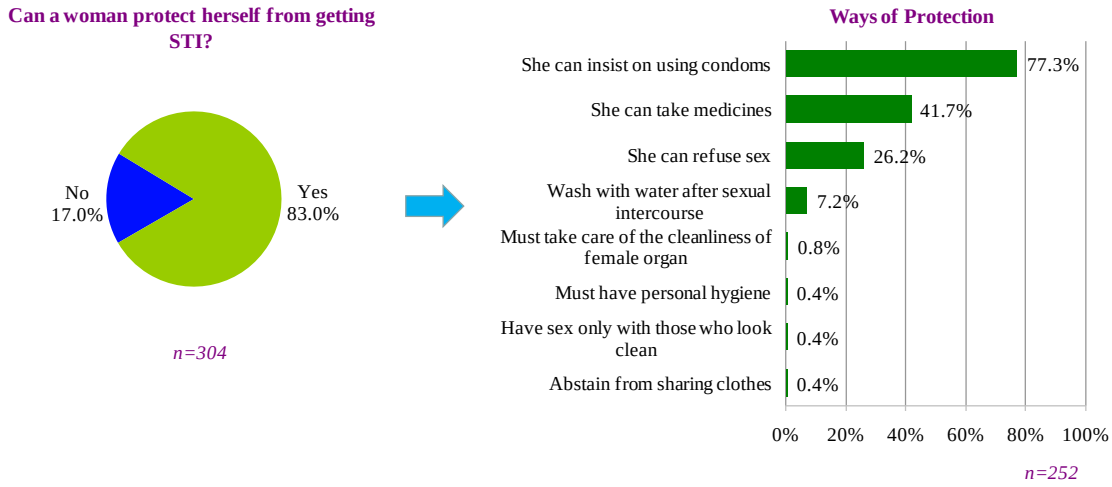
**Table 14: The INGO Clinics FSWs visited for STI Treatment**

| | | Target Group | | |
|---|---|---|---|---|
| INGO Clinic | | Brothel based SW Base n=12 | Street based SW Base n=23 | Night club SW Base n=14 |
| PSI | 40.9% | 66.7% | 43.5% | 14.3% |
| AZG | 28.6% | 25.0% | 30.4% | 28.6% |
| MDM | 28.4% | 8.3% | 21.7% | 57.1% |
| AMI | 2.1% | 0.0% | 4.3% | 0.0% |

The organizations where they went to seek STI treatment, Population Service International (PSI), Artsen Zonder Grenzen/Medecins Sans Frontières – Holland (AZG), Medecins du Monde (MDM), Aide Medicale Internationale (AMI) were mentioned by the respondents. As per the results table, the incidence of taking STI treatment from PSI was highest among the sex workers in the study. It appears that brothel based sex workers are more likely to take treatment from PSI while night club based sex workers tended to take more from MDM. On the other hand, AZG was mainly visited by more of the street based sex workers.

### 4.3.3. Self Protection for STI

**Figure 19: FSWs' Self Protection against STI**

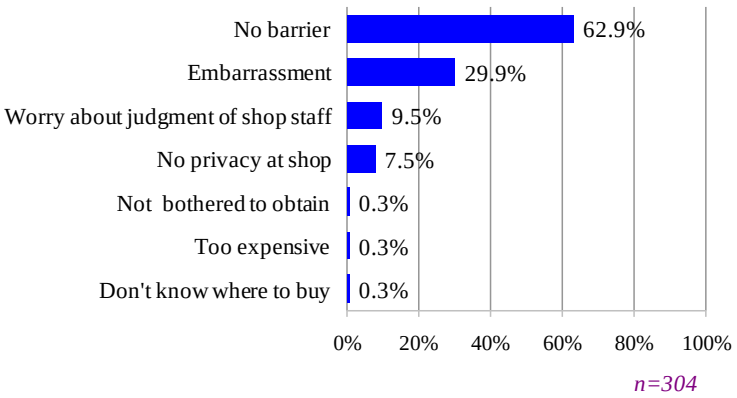



Most of the sex workers in the study believed that a woman could protect herself from getting STI and the main way of protection as mentioned by the majority was to "insist on using condoms" (77.3%). That method was expressed more by night club sex workers (83.1%). At the same time, two fifths of FSWs talked about taking medicines while a quarter among the rest suggested to refuse sex. There were still some (7.2%) who accepted the idea of washing oneself after sexual intecourse as a way of STI protection.

## 4.4. Attitudes towards Condom Use

Condoms appeared to be widely available, affordable, and easily accessible to sex workers in the study. Almost all the sex workers (except 4) knew the place where condoms were available and a considerably high proportion of them said they could get to the place within 5-10 minutes. If compared between the target groups, brothel and street based sex workers appeared to take less time to get condoms.

**Figure 20: Barriers toward Male Condoms**




On the other hand, approximately two fifth of the sex workers (37.1%) were still facing barriers to obtain male condoms. For them, embarrassment, lack of privacy at the shop and potential negative judgment by the shop staff are the main barriers to obtaining male condoms and these were more so for the night club sex workers.

Sex workers learnt about proper condom use mainly from their friends (44%) and condom packet (25.7%). Those with higher education level were more likely to have learnt it from condom packets. Only a small proportion (4.3-9.9%) of sex workers said they had learnt condom use from INGO and health care workers.

### 4.4.1. Female condoms

**Table 45: Awareness and Use of Female Condoms among FSWs**

| Use of Female Condoms | Brothel based FSW | Street based FSW | Nightclub FSW |
|---|---|---|---|
| Have heard of female condom 95.4% | 96.6% | 95.7% | 94.3% |
| Been shown how to use female condom 65.4% | 81.0% | 62.2% | 61.1% |
| Believe that I know how to use female condom correctly 46.0% | 60.3% | 44.0% | 40.7% |
| Have ever used female condom 25.3% | 27.5% | 21.6% | 23.3% |
| Used female condom in the past 30 days 4.2% | 6.8% | 2.7% | 4.8% |

*n=304*

The awareness of female condom appears to be high. In the study, almost all the sex workers said they heard about female condoms and approximately two thirds of them have been shown how to use female condoms. But less than one half were confident to say that they knew how to use a female condom correctly.

Regarding female condom use, only about one out of four sex workers have had the experience of using female condoms and the incidence of using female condoms in the past 30 days is quite low (4%). The main reason mentioned for not using female condoms was because they are using male condoms (56.3%). The other reasons include “difficult to use (8.3%)”, “worry that it is painful (6.4%), and “looks ugly (4.3%)”.

### 4.4.2. Flavored condom

**Table 56: FSWs' Preferences upon Flavored Condoms**

| Flavored Condom | Brothel based SW | Street based SW | Nightclub SW |
|---|---|---|---|
| Prefer flavored condom: 71.5% | 74.1% | 76.6% | 62.9% |
| Use condom more often because of the flavor: 41.4% | 36.2% | 45.0% | 39.8% |

*n=304*

Flavored condoms seemed to have influenced the likelihood of condom use in the commercial sex industry. Many of the sex workers said they preferred flavored condoms and about two out of five sex workers revealed that they used condoms more often because of the flavor.

### 4.4.3. Preferred places to obtain male condoms

**Table 67: Places that FSWs Preferred to obtain Male Condoms**

| Places preferred to obtain male condoms | Brothel based SW | Street based SW | Nightclub SW |
|---|---|---|---|
| Bar/Brothel/Restaurant/Hotel/Guest House: 61.5% | 63.8% | 57.4% | 65.7% |
| Betelnut shop: 19.8% | 13.8% | 24.1% | 17.1% |
| Pharmacy: 4.9% | 3.4% | 4.3% | 6.7% |
| Ruraldrug vendors: 4.3% | 6.9% | 3.5% | 3.8% |
| Convenience store: 3.0% | 5.2% | 2.1% | 2.9% |
| Condom stand: 2.3% | 1.7% | 4.3% | 0.0% |
| INGO: 2.0% | 3.4% | 2.1% | 1.0% |
| Beauty salon: 1.0% | 1.7% | 0.0% | 1.9% |

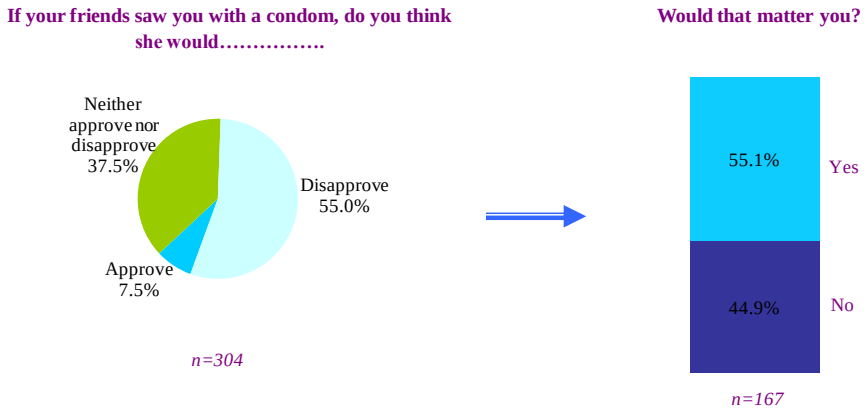
*n=304*

Although they knew many different places where condom were available, most of the sex workers preferred to obtain condoms from the usual place where they have sex with clients. Bar/brothels/guesthouses are most preferred places for sex workers to obtain male condoms. Betel nut shop is preferred by one quarter of street base sex workers.

However, pharmacies, convenience stores, beauty salons, and INGOs are not appeared to be their preferred place in order to get the condoms. Only a few sex workers in the study mentioned them as a place they prefer to obtain condoms.

### 4.4.4. Attitude towards condoms

**Figure 21: FSWs' Attitude towards Condoms**




When it comes to attitudes towards condoms, more than half (55.0%) of sex workers consider that their friends would not approve if they were seen with a condom while very few talk about their friends' approval (7.5%). Among those who mentioned their friends' disapproval, many felt (55.1%) that their friends' opinion was important and they did not want their disapproval.

**Table 18: FSWs' confidence in Buying and Carrying Condoms**

| | Brothel based SW *n= 58* % | Street based SW *n= 143* % | Nightclub SW n=103 % |
|---|---|---|---|
| Embarrassed to buy condom at a shop | 41.4% | 31.9% | 39.0% |
| Cannot handle a situation where a policeman found me with condoms | 68.9% | 66.7% | 80.0% |

Sex workers are still shy to buy condoms and in the study about two out of five sex workers said they were too embarrassed to buy condoms at a shop. In addition, the majority of sex workers were not confident that they could handle the situation when a police found them with a condom. In the study, about three quarters of the sex workers mentioned they could

not handle such a situation and especially it was most obvious for night club based sex workers (80%). In addition, the incidence of not using condoms is higher among those who said they could not handle the situation when the police found them with a condom (Incidence of unprotected sex: 10% -who are not confident and 2.3%- who are confident).

**Table 79: Female Sex Workers' Perceptions on Condom Use**

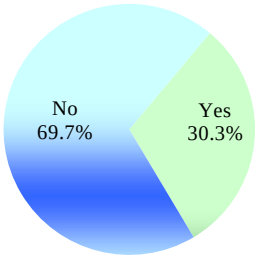
| Questions | Brothel Based SW | Street Based SW | Nightclub SW |
|---|---|---|---|
| 1). Do you think condoms are effective for preventing sexually transmitted diseases? (Yes) | 100.0% | 95.7% | 95.2% |
| 2). Do you think condoms break easily? (No) | 96.6% | 95.7% | 96.2% |
| 3.) Do you think using condoms causes you any pain? (No) | 82.8% | 81.6% | 86.7% |
| 4.) Do you think using Vaseline, cooking oil or hair cream can lead to condom breaking? (Yes) | 34.5% | 44.7% | 44.8% |

*n=304*

Concerning the questions on the effectiveness of condom use, almost all respondents unanimously agreed that comdoms were effective for prevention of STD and they also believe that condoms do not break easily. However, 16.5% of sex workers said that using condoms was painful for them. In the mean time, abut three-fifths of sex workers were not convinced that using vaseline, cooking oil, or hair cream could not lead to the condom breaking.

### 4.4.5. The incidence of carrying condoms

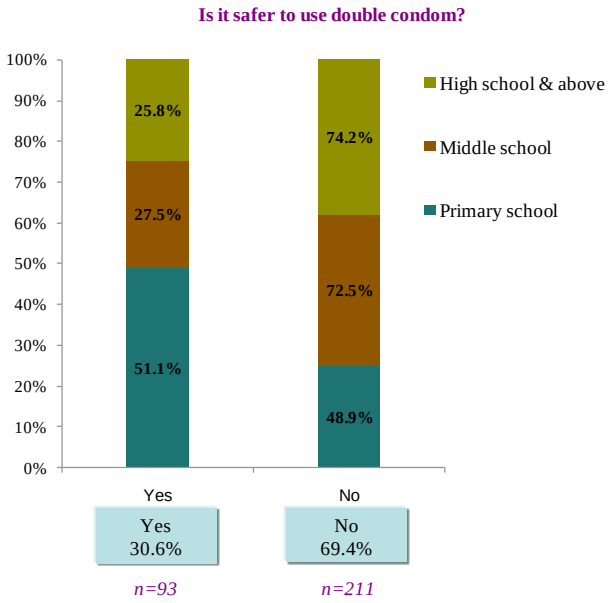
**Figure 22: Female Sex Workers who Carry Condoms at the moment of Interview**




*n=304*

In the study, sex workers were also asked whether they had a condom with them at the time of interview and it was discovered that only 3 out of 10 respondents had a condom with them (FSWs were asked to show the condoms if they carried with them at the moment of interview and all except two of the respondents (n=92) who said that they had condoms with them, could show their condoms to the interviewers). By cross tabulation, it was found that the incidence of keeping a condom with them is lower among those who were not confident to handle the situation when the police found them with a condom (26.1% withoutconfidence , 40.6% with confidence).

**Figure 23: FSWs' Perceptions on using Double Condoms**




They were also asked about their condom knowledge and approximately one third (30.6%) of the sex workers wrongly accepted that it was safer to use double condoms (wearing two condoms at the same time). This belief was held more among FSWs with lower education level as per the above graph.

### 4.4.6. Condom Use Negotiation

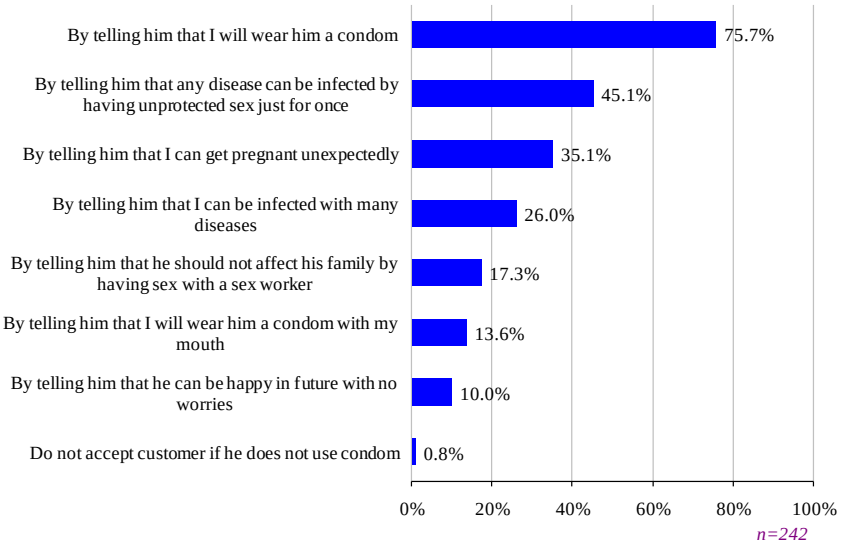
**Table 20: FSWs' Perceptions on Condom Negotiation**

**Do you know how to negotiate condom use with the clients? "Yes"**

| Total | Brothel based sex worker | Street based sex worker | Night club sex worker |
|---|---|---|---|
| 79.6% | 93.1% | 80.1% | 71.4% |

*n=304*

**Figure 24: Condom Negotiation Methods mentioned by FSWs**




In general, many of the sex workers believe that they know how to negotiate condom use with their clients. Although consistent condom use is high among night club based sex workers, the proportion of not knowing condom negotiation methods was higher among them when compared with sex workers from other establishments. In the study, about one quarter of night club based sex workers said they didn't know how to negotiate condom use with their clients. Brothel based sex workers appeared to be more confident about their condom negotiation skills.

The table on page 83 showed condom negotiation methods mentioned by the respondents in the study. "Telling the client that she will wear him a condom" (sex worker put the condom on client's sex organ with her hand) appeared to be an effective way of persuading their clients to use condom as a majority of sex workers mentioned it.

**Table 81: Reasons persuading FSWs to have Unprotected Sex**

| (Disagree/ Strongly disagree) | Brothel based SW *n= 58* | Street based SW *n= 141* | Night club SW *n= 105* |
|---|---|---|---|
| I will use condoms with a client even if he looks clean to me | 8.6% | 5.7% | 4.8% |
| I will use condom with a client even if he offers me extra money for not using a condom. | 19.0% | 22.7% | 18.1% |
| I will not accept client without condom even when I need money for emergency | 29.3% | 33.3% | 20.9% |
| I will not have sex with a client if he doesn't agree to use a condom | 19.0% | 21.3% | 22.9% |

The results indicated that one fifth to one quarter of sex workers were inclined to have sex without a condom on certain conditions such as: when they need money for emergency, when they are paid more money, or when the client insists on not using a condom. Such kind of inclination was found to be higher among the street based sex workers. However, clients are not likely to give more money for not using a condom, as the majority (78.9%) of sex workers in the study said their clients had never done so. Only about one fifth said they sometimes encountered such an offer.

Generally many of the sex workers have persuaded the client to use a condom when he didn't want to. While persuading, about two fifths of the sex workers didn't face any difficulties but the rest appeared to have difficulties, especially when the clients were drunk. Insisting or arguing on not using condom is the most mentioned kind of difficulties they faced when persuading the clients to use condoms. Still, the majority (79.6%) didn't think that insisting on condom use would make them lose clients. Brothel based sex workers were least likely to think in that way. However, some proportions of sex workers were reluctant to persuade their clients to use a condom when he didn't want to. That incidence was most significant with night club based sex workers (41.6%).

## 4.5. HIV/AIDS

### 4.5.1. HIV/AIDS Knowledge and Information Sources

**Table 22: Sources of HIV/AIDS Information**

**From what source did you receive the information about HIV/AIDS?**

| Source of Information | Target Group | | | |
|---|---|---|---|---|
| | Total | Brothel based sex worker | Street based sex worker | Night club sex worker |
| Television | 77.5% | 73.6% | 81.4% | 74.0% |
| Friends | 68.0% | 75.5% | 54.0% | 84.9% |
| Brochures | 47.3% | 43.4% | 51.3% | 43.8% |
| Health talk | 22.7% | 30.2% | 26.5% | 11.0% |
| Health worker | 16.4% | 13.2% | 20.4% | 12.3% |
| Cartoon | 14.2% | 17.0% | 15.0% | 11.0% |

*n=239*

Sex workers who had heard information about HIV/AIDS in the past 30 days were asked the sources of that information. Television and friends were the most commonly mentioned sources. While "Television" was the main HIV/AIDS information source for both brothel and street based sex workers, the majority of night club based sex workers appeared to receive information from "Friends" (84.9%). It could also be said that many of the sex workers were likely to be sharing information among them.

Being the third commonly expressed source for AIDS information, "Brochures" was cited by (47.3%) of the respondents and street based sex workers were more likely to encounter brochures more than the other two targets. However, receiving information from "Health talk" and "Health worker" is still low, especially for night club based sex workers. On the other hand, 1 out of 7 sex workers said that they got HIV/AIDS information from "Cartoons" and this was more significant for the brothel based sex workers.

### 4.5.2. HIV/AIDS Transmission

**Table 23: Ways of HIV Transmission (Total mentioned)**

| HIV can be transmitted through ……. | Total % | Brothel Based SW % | Street Based SW % | Night Club Based SW % |
|---|---|---|---|---|
| Unprotected sexual contact | 97.7 | 100.0 | 97.9 | 96.2 |
| Exposure to infected blood | 65.3 | 60.3 | 62.9 | 71.4 |
| Transmission from a mother with HIV infection to her child/ foetus | 46.3 | 51.7 | 48.6 | 40.0 |
| Shaking hands, hugging or kissing with an infected person | 1.3 | 1.7 | 2.1 | 0.0 |
| Injecting drugs | 29.3 | 36.2 | 24.3 | 32.4 |
| Through a mosquito bite | 2.0 | 1.7 | 3.6 | 0.0 |
| Working, socializing or living side by side with HIV positive people | 0.7 | 1.7 | 0.7 | 0.0 |
| Sharing unsterilized injecting needles | 61.0 | 55.2 | 56.4 | 70.5 |
| Tattooing | 12.9 | 17.2 | 12.9 | 10.5 |
| Tooth extraction | 4.3 | 1.7 | 4.3 | 5.7 |
| Shaving | 3.0 | 0.0 | 2.9 | 4.8 |
| Sharing a knife at Barber Shop | 2.0 | 1.7 | 3.6 | 0.0 |
| Blood transfusion | 1.0 | 0.0 | 2.1 | 0.0 |
| If condom breaks easily | 0.3 | 0.0 | 0.0 | 1.0 |

*n=303*

All the sex workers, except 1 street based sex worker, confirmed that HIV could be transmitted from one person to another. All means of HIV transmission revealed by those respondents were stated in the table above.

The majority of the respondents (83.8%) spontaneously mentioned "Unprotected sexual contact" as the transmission mode for HIV. When both single and multiple responses were conbined, almost all respondents affirmed "Unprotected sexual contact" as the main HIV tramsmission mode. The second most frequently mentioned transmission mean was through "Sharing unsterlized injecting needles" cited by 61.0% of sex workers and that mean was more well known among night club sex workers.

"Exposure to infected blood" was mentioned by two-thirds of all respondents and that knowledge was highest among night club sex workers. "Transmission from HIV infected mother to her child or foetus" took the third position among nearly half of the sex workers and more brothel based sex workers mentioned it.

In general, each FSW could tell an average of 3 different modes of HIV transmission. However, there are still a few sex workers who thought that HIV could be transmaitted through "Mosquito bites and shaking hands or hugging with infected person".

**Table 24: Ways of HIV Transmission (Those who answered "False")**

| HIV can be transmitted by……. "False" | Total % | Primary School % | Middle School % | High School & above % |
|---|---|---|---|---|
| Shaking hands with someone who has HIV or AIDS | 99.0 | 95.4 | 99.4 | 100.0 |
| Kissing or Hugging | 86.1 | 62.8 | 87.9 | 94.1 |
| Coughing or Sneezing | 92.0 | 74.4 | 93.1 | 98.8 |
| Using a public phone | 99.0 | 95.4 | 99.4 | 100.0 |
| Sharing food, Eating or Drinking utensils | 87.8 | 69.8 | 90.3 | 91.8 |
| Exposure to infected blood | 0.3 | 0.0 | 0.6 | 0.0 |
| Working, Socializing with HIV-positive people | 75.8 | 58.3 | 77.5 | 81.2 |
| Living side by side with HIV-positive people | 81.1 | 65.2 | 83.9 | 83.6 |
| From a mother with HIV infection to her child during pregnancy or during delivery | 3.0 | 2.3 | 2.3 | 4.7 |
| As a result of breast feeding by HIV infected mother | 2.6 | 2.3 | 2.3 | 3.5 |

*n=302*

FSW participated in this KAP survey were asked some "True or False" questions concerning HIV transmission methods to reconfirm their knowledge and their responses are shown in the above table.

Although most of the respondents could mention the ways which are not risky for HIV contraction, some one-fifth to one-quarter of sex workers believed that people could get HIV by working, socializing or living side by side with HIV positive people.

### 4.5.3. HIV/AIDS Prevention

**Table 95: HIV Prevention Methods (Total mentioned)**

| HIV Prevention Methods | Total % | Primary School % | Middle School % | High School & Above % |
|---|---|---|---|---|
| Wear a condom at every sexual intercourse | 98.0 | 88.9 | 99.4 | 100.0 |
| Have one faithful sex partner | 45.7 | 35.7 | 43.7 | 55.3 |
| Wash thoroughly following sex | 34.8 | 51.1 | 29.8 | 36.3 |
| Avoid sex with sex workers | 16.2 | 15.6 | 15.0 | 19.1 |
| Avoid mosquito bites | 2.0 | 8.9 | 0.6 | 1.2 |
| Avoid blood transfusions | 16.4 | 13.4 | 16.1 | 18.9 |
| Avoid sharing injecting needles | 74.0 | 60.0 | 75.9 | 77.6 |
| Reduce number of sexual intercourse | 0.3 | 0.0 | 0.6 | 0.0 |
| Use condom every time you have sex with people you don't know well | 0.3 | 2.2 | 0.0 | 0.0 |
| Abstain from sharing utensils | 1.0 | 0.0 | 1.7 | 0.0 |

*n=304*

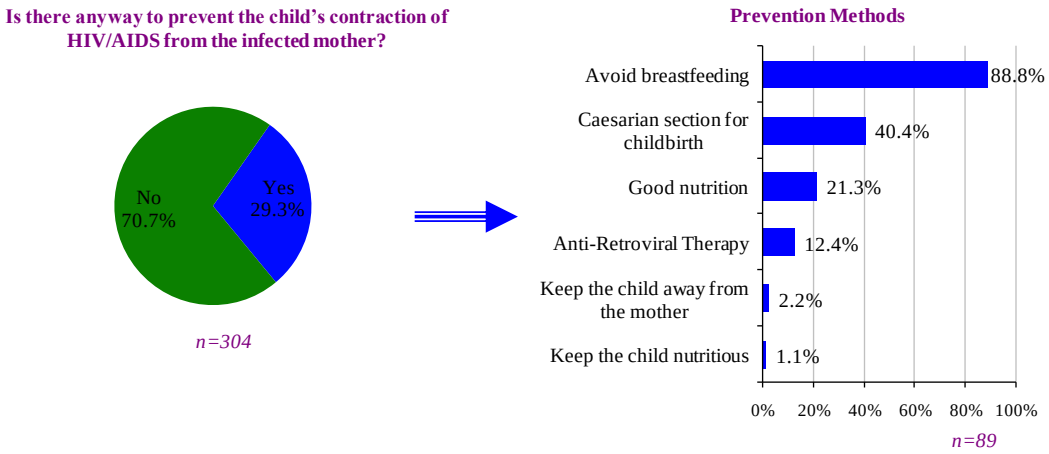
In the study, all sex workers' knowledge on HIV prevention methods were also inquired, and each respondent could mention an average of 3 different ways of prevention. The majority (83.5%) of all respondents remembered "Wearing a condom at every sexual intercourse" as their top-of-mind prevention method and almost all respondents emphasized upon that fact in total.

The second most commonly mentioned way of prevention was to "Avoid sharing injecting needles" cited by 74.0% of the respondents, followed by "Having one faithful sex partner" (45.7%). However, approximately one third of sex workers wrongly accepted the idea that "Washing thoroughly following sex" could prevent HIV transmission and even more educated sex workers stated this falsehood.

Although there was no significant difference among three different types of sex workers on knowledge of HIV prevention methods, sex workers with high school education could tell the correct answers more than those with lower education when it was compared with different education levels.

### 4.5.4. Prevention of HIV/AIDS contraction from Mother to Child

**Figure 25: HIV Prevention Methods from an Infected Mother to her Child**




Concerning the knowledge on prevention of HIV/AIDS contraction from the infected mother to her child, seven out of ten FSW considered that there was no way of prevention. The rest one-third believed there were ways to prevent mother-to-child transmission and majority of them stated to "Avoid breast feeding". Two-fifth of the respondents recommended "Caesarian section for childbirth" and only (12.4%) indicated "Anti-Retroviral Therapy" as prevention method.

As per these results, it was apparent that prevention of mother to child transmission was not familiar to sex workers in Yangon.

### 4.5.5. Discussing about HIV/AIDS among Peers

**Table 106: HIV/AIDS Discussion among Peers**

| Discussed HIV or AIDS with friends in the past 30 days | Target Group: Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| Yes, All | 7.9% | 10.3% | 8.5% | 5.7% |
| Yes, Some | 55.2% | 70.7% | 46.1% | 59.0% |
| No, None | 36.9% | 19.0% | 45.4% | 35.2% |

n=304

Many of the sex workers appeared to discuss about HIV/AIDS with their sex worker friends. Brothel based sex workers were the most willing among all sex workers to share their HIV knowledge with their peers. One the other hand almost half of the street based sex workers were hestitant to talk about HIV/AIDS among their peers.

**Table 117: Revealing HIV Status among Peer Friends**

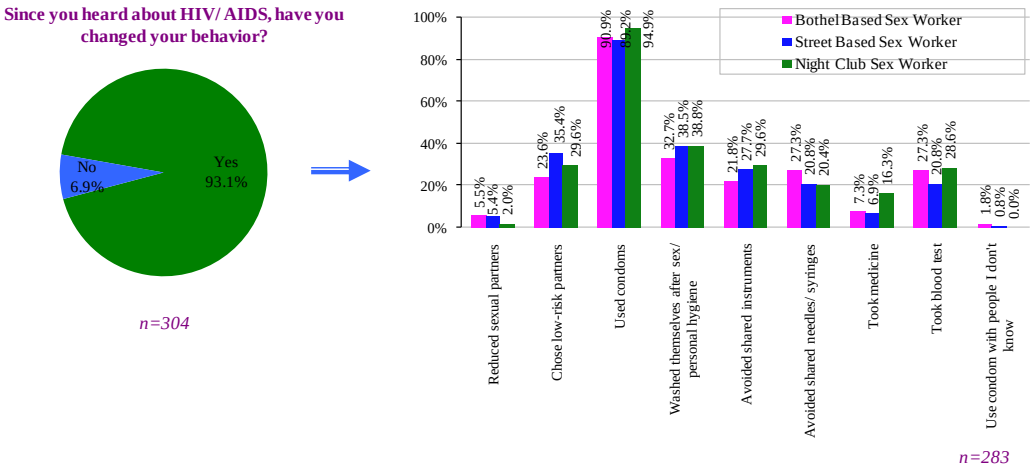
| Any of those friends have told their HIV status | Target Group: Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| Yes, All | 21.9% | 29.8% | 22.1% | 16.2% |
| Yes, Some | 66.2% | 59.6% | 71.4% | 64.7% |
| No, None | 11.9% | 10.6% | 6.5% | 19.1% |

n=192

It appears that sex workers are talking about their HIV staus to each other. Of those sex workers who had discused about HIV/AIDS with their friends in the past 30 days, about one fifth of the sex workers said that all of their friends told them about their HIV status and some two-thirds of the sex workers mentioned that some of their peers revealed their HIV status. According to the results, brothel and street based sex workers are more likeley to share their HIV status than night club based sex workers.

### 4.5.6. Behavior Change

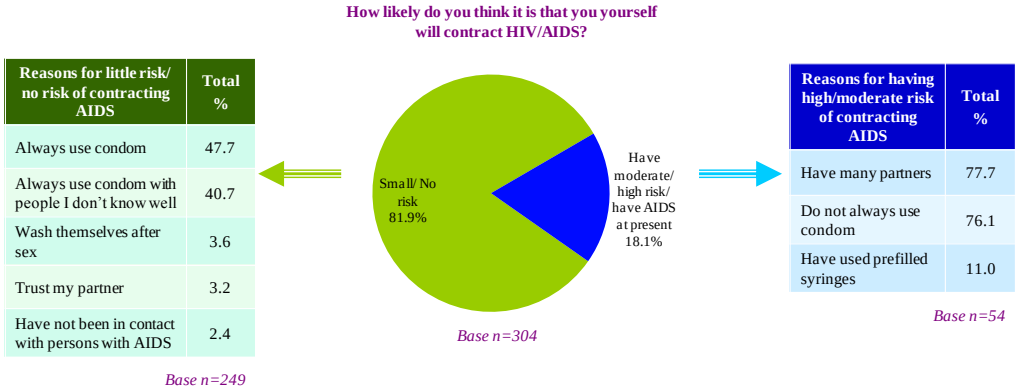
**Figure 26: Behavior Change among FSWs after hearing about HIV/AIDS**




Almost all respondents said that they had changed their behaviors since they heard the information about HIV/AIDS. The majority of them said that their changed behavior was "Using condoms". The second most commonly cited behavior was "Washing themselves after sex" mentioned by 37.5% of the sex workers and that behavior was found to be practiced more among street based and night club sex workers. The other mentioned changed behavior included "choosing low-risk partners (31.1%)", and "Taking blood test (24.7%)".

### 4.5.7. Risk Perception

**Figure 27: HIV Risk Perception among FSWs**




| Reasons for little risk/ no risk of contracting AIDS | Total % |
|---|---|
| Always use condom | 47.7 |
| Always use condom with people I don't know well | 40.7 |
| Wash themselves after sex | 3.6 |
| Trust my partner | 3.2 |
| Have not been in contact with persons with AIDS | 2.4 |

*Base n=249*

| Reasons for having high/moderate risk of contracting AIDS | Total % |
|---|---|
| Have many partners | 77.7 |
| Do not always use condom | 76.1 |
| Have used prefilled syringes | 11.0 |

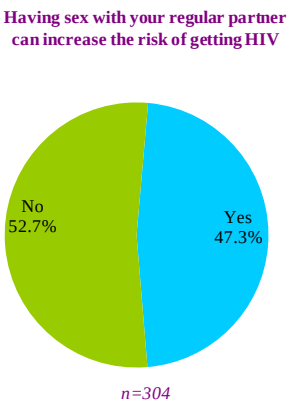
*Base n=54*

More than half of the sex workers in the study believed AIDS was a serious problem in their community and those with higher education were more likely to think so.

When they were asked about their personal risk status, the majority of the sex workers didn't think that they were at risk. The reasons given for believing so were: "always used condoms with their customers (47.7%)", "they used condom with the people they didn't know well (40.7%)". There were still 3.6% of sex workers who wrongly believed that they had little risk of contracting HIV/AIDS as they washed themselves after sex.

Approximately one out five of sex workers perceived that they had high or moderate risk of contracting HIV, and only one street based sex worker openly said that she was HIV positive at present. The main reason for those who had risk of HIV contraction was "Having many partners" (77.7%) and "Do not always use condoms" (76.1%) while (11.0%) of respondents thought they were at risk since they had used pre-filled syringes in the past.

**Figure 28: The Risk of getting HIV by having sex with a Regular Partner**



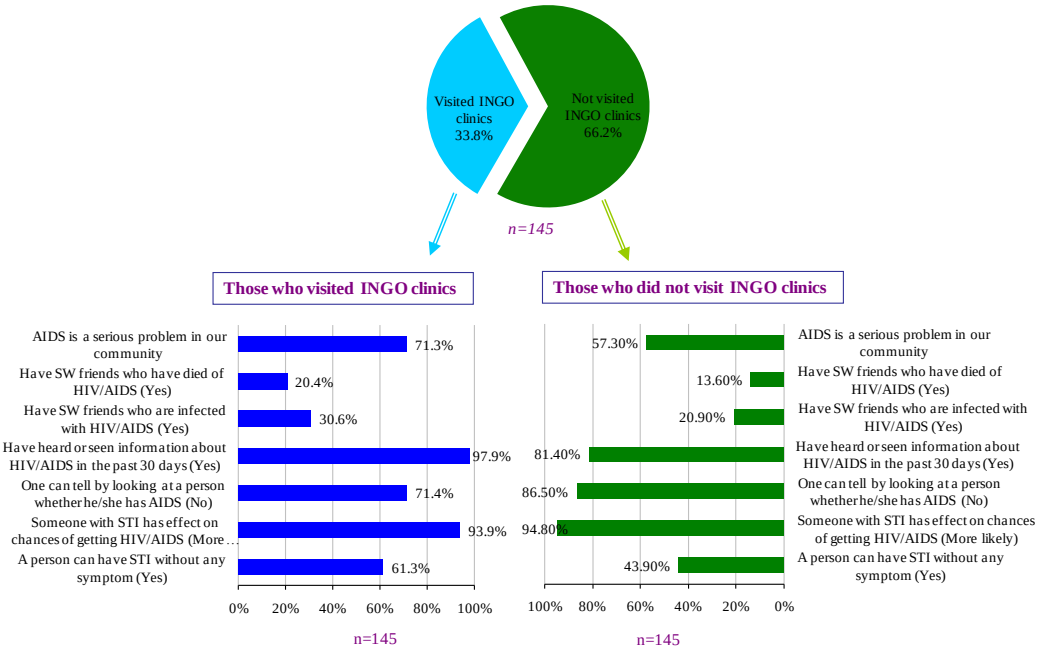

| Having sex with regular partners without condom increase HIV risk | | Yes |
|---|---|---|
| Target Group | Brothel based | 43.1% |
| | Street based | 45.4% |
| | Night club based | 52.4% |
| INGO Visit | Visited INGO clinic | 44.7% |
| | Not visited INGO clinic | 47.8% |
| Education Level | Primary School | 31.0% |
| | Middle School | 43.2% |
| | High School & above | 64.7% |
| Period of having sex for money | <1 yr | 35.1% |
| | 1 yr | 37.3% |
| | 2 yrs | 60.4% |
| | 3 yrs | 54.9% |
| | >3 yrs | 80.0% |

*n=304*

Having sex with a regular partner without a condom was wrongly accepted to be safe by more than half of the sex workers. This belief was held by (52.4%) of night club sex workers which was the highest percentage among the target groups. It was also found that respondents with higher education were more likely to accept that idea.

When different periods of commercial sex experience were compare, sex workers engaged longer in commercial sex were more likely to believe in having sex without condoms with their regular partners could not increase the risk of getting HIV.

**Figure 29: HIV Knowledge between INGO Clinic Users and Those who did not visit INGO Clinics**



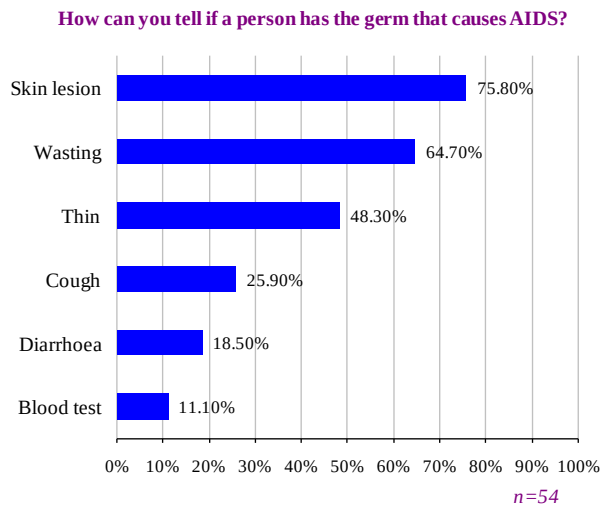

Nearly one half of the sex workers in the study had suffered STI and of them approximately one third (33.8%) went to INGO clinics for treatment while the rest (66.2%) sought help from other sources, such as private clinics, pharmacies or drug stores and government STD departments.

In the figure above, knowledge of both groups on STI and HIV/AIDS was compared and it was discovered that those who went to seek treatment at INGO clinics were more likely to be able to tell the correct answers in many cases. The result indicated that a higher proportion of INGO clinic users than non users knew that a person could have STI without any symptoms and they are more likely to have heard or seen information about HIV/AIDS in the past 30 days. In addition, they tended to perceive more than others that AIDS was a serious problem in their community.

It was also concluded from the results that the status of HIV/AIDS was more open among those who visited INGO clinics than those who did not. They tended to have more sex worker friends who had died of AIDS or who were currently infected. Half of those sex workers said that they came to know their friend's HIV status as they personally told them.

Nevertheless, almost one third of sex workers who were seeking help from INGO clinics for STI treatment still wrongly accepted that they could tell by looking at a person whether he/she had AIDS; whereas only 13.5% of those who did not go to INGO clinics accepted that idea.

**Figure 30: Female Sex Workers' Perceptions on HIV Infected People**



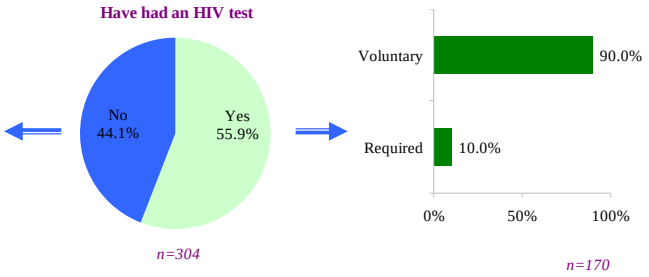

Those sex workers who said they could tell by looking at a person whether she/he had AIDS were asked how they could tell. The main reasons as mentioned by the respondents were shown in the above figure. Majority of them expressed "Skin lesion" as the main feature of AIDS patients and "Wasting" was the second most commonly mentioned symptom.

### 4.5.8. HIV Testing

**Figure 31: HIV Tests among Female Sex Workers**

| Reasons for not having HIV test | Total % |
|---|---|
| Do not have enough time to organize/ I can't be bothered. | 32.8 |
| Do not know where I can get a HIV test. | 3.0 |
| Because it is lack of confidentiality and people might know my status | 7.4 |
| Fear knowing status because of negative judgments | 31.4 |
| I don't need an HIV test, it is not for me. | 20.9 |
| I did not know there was such a test. | 1.5 |
| Can't afford a test | 3.0 |

*n=134*

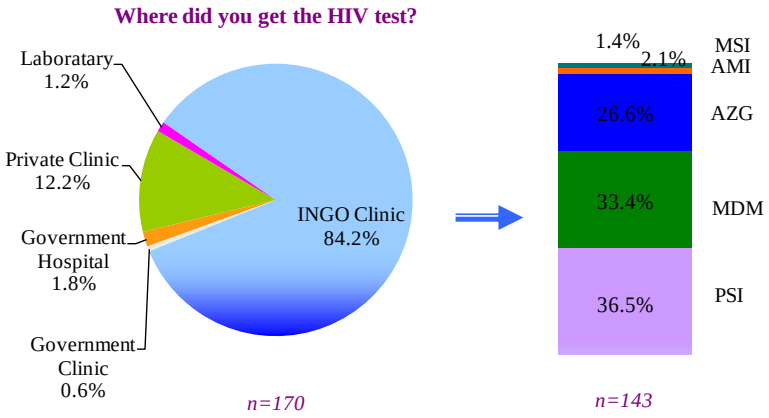



A little more than one half of the sex workers has had an HIV test. Most of the tests were done voluntarily and only some have taken the test due to a doctor's suggestion. Cross tabulation indicated that sex workers who have engaged in commercial sex for a longer period were more likely to take HIV test (82.5% - SW with three years experience, 86.6% - SW with more than three years experience, 35.1%- SW with less than one year).

However, approximately four out of ten sex workers were still reluctant to have an HIV test. The two main reasons for being unwilling to have an HIV test were "Do not have enough time" and "Fear of knowing their status because of negative judgments" mentioned by one fifth of them. Some 20.9% of sex workers believed that the HIV test was not for them.

### 4.5.9. Places of HIV Test

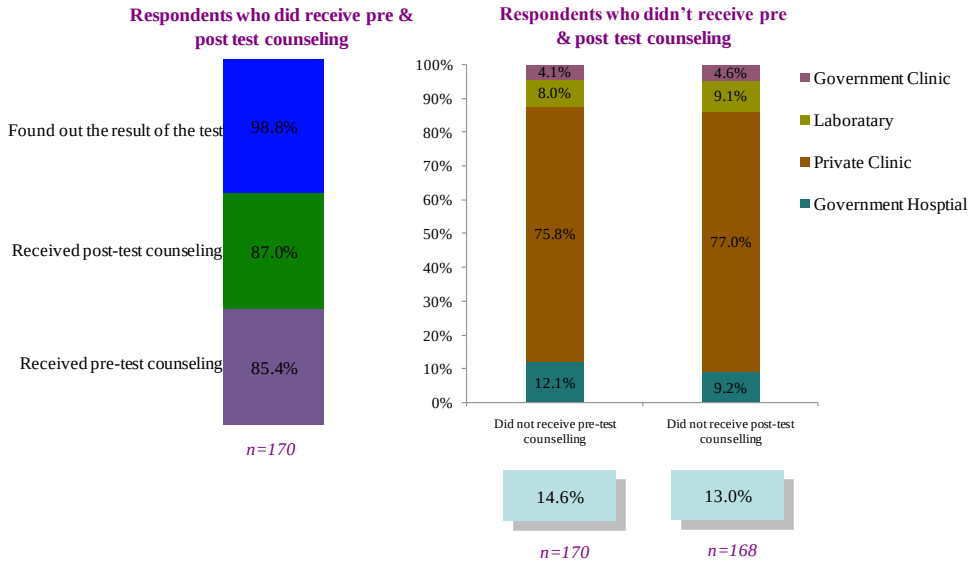
**Figure 32: Places of HIV Tests among Female Sex Workers**




The majority of the sex workers had their HIV test at "INGO clinics" as mentioned in the figure above and the second most commonly visited place for sex workers to have HIV tests were "Private clinics" (12.2%). Only a few sex workers went to "Laboratories, Government hospitals and Government clinics". Among the INGO clinics, PSI (Population Services International) took the biggest portion (36.5%) as most frequently visited places for HIV testing followed by MDM (33.4%) and AZG (26.6%) whereas AMI and MSI was visited for HIV test by a small proportion of sex workers.

### 4.5.10. Pre/ post HIV Counseling

**Figure 33: HIV Counseling among Female Sex Workers**




Almost all respondents (98.8%) who took HIV testing at different places found out the result of the test and majority of them received both pre and post-test counseling. But there were still 4.6% of sex workers who did not get pre-test counseling and 13.0% who did not get post-test counseling when they had an HIV test at private clinic, laboratory, government clinic and hospital as mentioned in the figure above.

**Table 128: Female Sex Workers' Perceptions on HIV Sero-status**

| | Education Level | | | |
|---|---|---|---|---|
| HIV sero-tatus and HIV test | Total | Primary School | Middle School | High School & above |
| It is important to know our HIV sero-status (n=304) | 82.5% | 73.5% | 83.3% | 85.8% |
| Want to have an HIV test if it is strictly confidential (n=304) | 72.6% | 66.8% | 68.9% | 83.4% |

Many of the sex workers (82.5%) believed that it was important to know their HIV sero-status. Nevertheless, there were slightly more than one quarter of sex workers who were still reluctant to have HIV test even if it was strictly confidential. It was discovered that sex workers with higher education were more likely to be flexible about the HIV test and knowing their HIV status.

### 4.5.11. Misconceptions

**Table 29: Female Sex Workers' Correct responses toward UNGASS Indicators**

| Correct responses to UNGASS indicator (correct answer to all questions) | Brothel Based SW % | Street Based SW % | Night Club SW % |
|---|---|---|---|
| 1). "A healthy looking person can have the germ that causes AIDS" (Yes) | 81.0 | 82..3 | 77.1 |
| 2). "Using a condom correctly every time you have sex protect the risk of getting HIV/AIDS" (Yes) | 98.3 | 98.6 | 96.2 |
| 3). "A person can get infected with HIV/AIDS through sharing clothes" (No) | 87.9 | 89.4 | 83.8 |
| 4). "A person get infected with the germ that causes AIDS from mosquito bites" (No) | 81.0 | 83.7 | 84.8 |
| UNGASS Indicator | 65.5 | 69.5 | 61.9 |

*n=304*

The percentage of misconception was found to be significantly high among sex workers as only 66.2% of the total respondents could tell all correct answers of the UNGASS indicators. The results indicated that one fifth of sex workers were not convinced that a healthy looking person could have HIV and still believed that a person could get infected with HIV from a mosquito bite.

It was also discovered that the more educated sex workers were, the less incorrect attitudes towards UNGASS they had. On the other hand, although 86.8% of all respondents knew that HIV could not be infected by sharing a meal with a PLWHA, more than a quarter of them were not willing to share a meal with a PLWHA and that attitude was found to be quite high among sex workers with lower education and those with shorter period in the commercial sex industry (less than one year and one year – 38.7%).

## Table 30: Female Sex Workers' Knowledge of HIV/AIDS

| Question | Total | Brothel based SW % | Street based SW % | Night Club SW % |
|---|---|---|---|---|
| 406) "Do you think AIDS can kill people?" (Yes) | 93.1 | 94.8 | 91.5 | 94.3 |
| 411) "Can people protect themselves from getting HIV by abstaining from sexual intercourse?" (Yes) | 50.1 | 53.4 | 56.0 | 40.0 |
| 422) "Can you get HIV/AIDS if you have sex just once or twice without using a condom?" (Yes) | 92.7 | 94.8 | 90.8 | 94.3 |
| 423) "Is it destiny whether or not someone will contract HIV/AIDS?" (Yes) | 36.0 | 31.0 | 44.0 | 27.6 |
| Q413) "Can a person get HIV by getting injections with a needle that was already used by someone else?" (Yes) | 98.7 | 100.0 | 98.6 | 98.1 |

*n=304*

Concerning their knowledge of HIV/AIDS, almost all respondents (93.1%) believed that AIDS could kill people and they knew that having sex without condom just once or twice and sharing injecting needles were risky behaviors for HIV contraction. But half of them did not consider that abstaining from sexual intercourse could protect oneself from getting HIV. However, fewer sex workers from night club (40.0%) accepted that idea compared to the other two targets.

Sex workers participated in this study seemed to believe more in their action than their destiny since only (36.0%) answered that contracting HIV/AIDS was not a destiny.

### 4.5.12. Stigma and Discrimination

**Table 31: Stigma and Discrimination against HIV/AIDS**

| Stigma & Discrimination against HIV/AIDS | Brothel Based SW % | Street Based SW % | Night Club SW % |
|---|---|---|---|
| 1). If a relative became sick with HIV, the virus that causes AIDS, would you be willing to care for him/ her in your household? (Yes) | 79.3 | 78.7 | 81.0 |
| 2). If a student has HIV but is not sick, should he/she be allowed to continue to attend school? (Yes) | 67.2 | 66.7 | 76.2 |
| 3.) If you knew that a shopkeeper or food seller had the HIV virus, would you buy fresh vegetables from him/ her? (Yes) | 81.0 | 73.0 | 66.7 |
| 4). If a member of your family became infected with the HIV virus, would you want it to remain a secret? (No) | 55.2 | 51.1 | 60.0 |
| Acceptance Indicator | 34.5 | 33.3 | 34.3 |

*n=304*

There seemed to be a considerable amount of stigma and discrimination among all sex workers in Yangon. One-fifth of total respondents said they would not be willing to care for a PLWHA relative and 30%of them thought an HIV positive student should not be allowed to continue to attend school even if he/she was not sick. Additionally, one out of three sex workers did not want to buy fresh vegetables from a HIV positive shopkeeper.

Furthermore, slightly more than half of the total respondents (54.9%) confirmed that they would like to remain secret about their family member's HIV status if he/she was positive and that attitude was held noticeably higher among night club sex workers (60.0%). Therefore, the percentage of correct answers towards Acceptance Indicator among all sex workers was quite low (33.9%).

### 4.5.13. Perceived available treatment for HIV/AIDS

**Table 32: Perceived Treatment for HIV/AIDS**

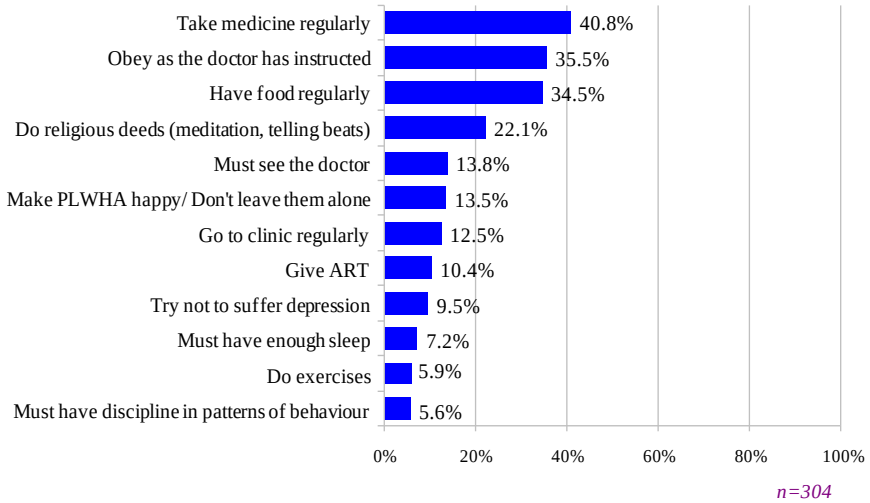
| Perceived Treatments | Total | Brothel Based SW | Street Based SW | Night Club SW |
|---|---|---|---|---|
| Traditional treatments for people with HIV/AIDS is available in Myanmar | 20.4% | 24.1% | 19.9% | 19.0% |
| Modern treatments for people with HIV/AIDS is available in Myanmar | 55.6% | 53.4% | 56.0% | 56.2% |

*n=304*

Most of the sex workers mentioned that there was no cure for AIDS. When sex workers were asked about the availability of the treatment, one –fifth of the sex workers believed that there was traditional treatment for PLWHA to remain healthy while more than half (55.6%) mentioned the availability of modern treatments. Yet, 43.4% of respondents did not mention either traditional or modern treatments.

All sex worker respondents were also asked about the best treatment, if any, for an HIV positive person and their answers to that query were conveyed in the table below. Only a few sex workers mentioned ART.

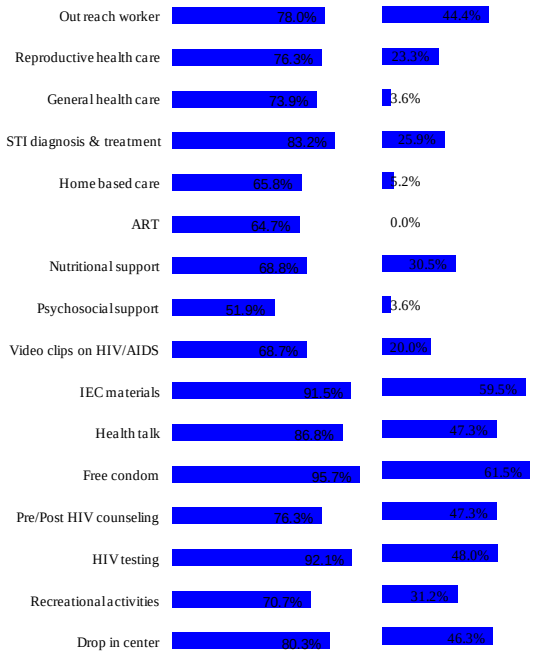
**Figure 34: Best Treatment mentioned by FSWs for HIV infected Person**




*n=304*

## 4.6. Awareness and Use of HIV Services

**Figure 35: Awareness and Use of HIV Services among FSWs**




**Organizations services received from**

| Public Hospital % | AZG % | PSI % | MSI % | MDM % | AMI % | UNICEF % |
|---|---|---|---|---|---|---|
| - | 6.9 | 32.5 | 1.9 | 22.0 | 0.6 | 0.6 |
| 0.3 | 6.5 | 9.2 | 0.6 | 9.2 | 1.0 | - |
| - | 0.6 | 1.0 | - | 1.6 | 0.3 | - |
| 0.6 | 6.2 | 13.1 | - | 10.1 | 1.0 | - |
| - | 0.3 | 2.3 | - | 2.9 | - | - |
| - | - | - | - | - | - | - |
| - | 2.3 | 20.3 | - | 16.4 | 0.6 | - |
| - | 0.3 | 1.6 | - | 1.9 | - | - |
| - | 5.5 | 10.8 | - | 5.9 | 0.3 | - |
| 0.6 | 10.5 | 42.7 | 0.6 | 27.6 | 1.3 | 0.3 |
| 0.6 | 8.8 | 28.2 | 0.3 | 18.4 | 1.3 | - |
| - | 11.8 | 44.0 | 2.6 | 29.6 | 1.3 | 0.6 |
| 0.3 | 14.1 | 23.6 | 0.6 | 17.4 | 1.0 | - |
| 1.0 | 14.1 | 24.0 | 0.6 | 17.7 | 1.0 | - |
| - | 1.0 | 19.7 | - | 19.7 | 0.3 | - |
| - | 1.0 | 33.8 | - | 24.0 | 1.3 | - |

*n=304*

Among the sex workers, the most recognized services included providing free condoms; HIV testing and health education activities and approximately one half of the sex workers in the study have received those services. However, regardless of high awareness, the usage of reproductive health care, general health care and STI treatment appear to be low. In the study, only about one out of ten sex workers (9.2%-10.1%) had taken the services for reproductive health care or STI diagnosis/ treatment from MDM.

More than one half of the sex workers have never visited Drop-In center. If compared with others, the incidence of Drop-In center use is lower among the night club based sex workers (55.1% brothel based SW, 48.6% street based SW, 40.7% night club based SW).

A few (3.6% - 5.2%) sex workers mentioned that they have general health care, home based care, or psychosocial support.

## 4.7. Visiting Drop-In Centers

### 4.7.1. The organizations used in the last time for different services

**Table 33: HIV Services received by FSWs from different INGOs at last time**

| Services | Organizations used at last time | | | | | |
|---|---|---|---|---|---|---|
| | Govt-Hospital % | AZG % | PSI % | MSI % | MDM % | AMI % |
| Drop in center | - | - | 25.9 | - | 18.7 | 1.3 |
| Recreational activities | 7.0 | 12.1 | 14.8 | 0.6 | 15.7 | 1.0 |
| HIV testing | 7.0 | 12.7 | 17.4 | 0.6 | 15.7 | 1.0 |
| Pre/Post HIV counseling | 0.3 | 12.1 | 17.4 | 0.6 | 15.7 | 1.0 |
| Free condom | - | 6.5 | 31.9 | 1.6 | 20.3 | 1 |
| Health talk | 0.6 | 7.5 | 22.3 | 0.3 | 15.1 | 1.3 |
| IEC materials | 0.6 | 8.2 | 29.2 | 0.6 | 19.0 | 1.3 |
| Video clips on HIV/AIDS | - | 5.5 | 8.5 | - | 5.5 | 0.3 |
| Psychosocial support | - | 0.3 | 1.3 | - | 1.9 | - |
| Nutritional support | - | 1.6 | 14.8 | - | 13.4 | 0.6 |
| STI diagnosis & treatment | 0.6 | 5.5 | 9.8 | - | 8.8 | 1.0 |
| General health care | - | 0.6 | 1.0 | - | 1.6 | 0.3 |
| Reproductive health care | 0.3 | 5.9 | 7.2 | 0.6 | 8.2 | 1.0 |
| Out reach worker | - | 3.2 | 23.6 | 1.9 | 15.4 | 0.3 |

*n=304*

In the study, sex workers who have used services were asked from which organization they received the last time. The table showed the organizations mentioned by the sex workers. Generally, the proportion of sex workers receiving services from PSI is highest and followed by MDM. When those sex workers were asked for comments on the services they received, all of them appeared to be satisfied.

## 4.8. Alcohol and Drug Use among FSWs

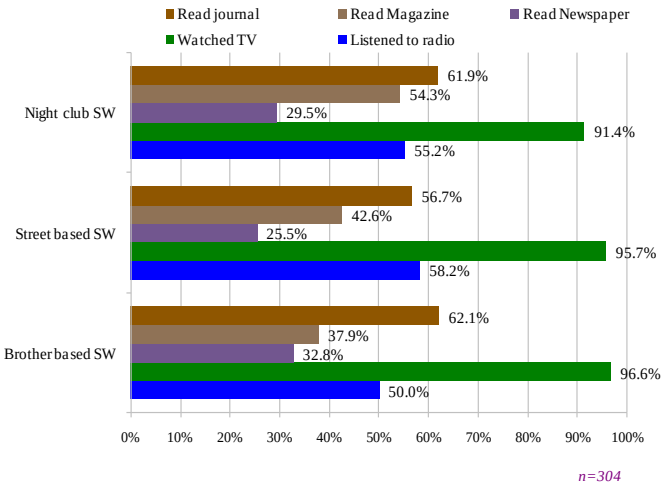
**Table 34: Alcohol and Drug Use among FSWs**

| Drug and Alcohol Usage | Target Group | | | |
|---|---|---|---|---|
| | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
| Drunk alcohol during work in the past 30 days (n=304) | 57.4% | 56.9% | 48.2% | 70.5% |
| Used Yaba during work in the past 30 days (n=304) | 2.0% | 0.0% | 1.4% | 3.8% |

In the study, more than half of the sex workers (57.4%) tended to drink alcohol in the past 30 days and the incidence is highest among night club based sex workers (70.5%). Only a small proportion of sex workers used "Yaba" and again the incidence seemed to be higest among night club based sex workers.

## 4.9. Media Usage among FSWs

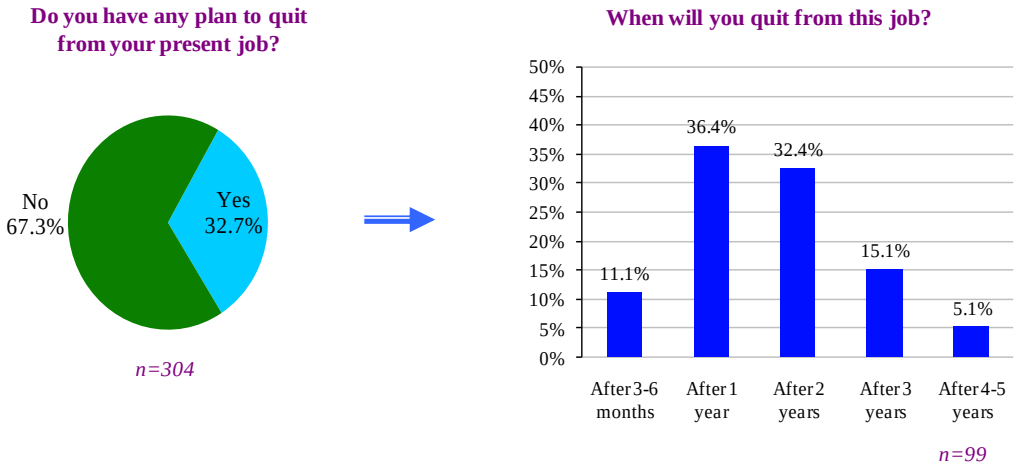
**Figure 36: Media Usage among FSWs in the past 4 weeks**




The figure above indicated media usage among sex workers in the past 4 weeks. TV seemed to be the most commonly used media for them. When it comes to journals and newspapers, brothel based sex workers were more likely to read them while street based sex workers listened to the radio more. The incidence of reading journals was found to be among one third of the sex workers and night club sex workers were more likely to read them.

## 4.10. Future Plan of FSWs

**Figure 37: Future Plan of Female Sex Workers**




The majority of sex workers in the study seemed to be satisfied with their current job since 67.3% had no plan to quit from being a commercial sex worker. Only three out of ten sex workers said that they had a plan to quit and many of them (83.8%) were planning to quit after 1 to 3 years time and 11.1% planned to quit in the near future (after 3-6 months).

Some sex workers (5.1%) were planning to quit from their current occupation after 4 to 5 years time and there were more night club sex workers among them. They also revealed their preferred professions that they would like to start after quitting from this present job, which were widely scattered. All professions mentioned by the respondents were listed in the table below and majority of them (85.9%) said they would need money for the interests while a few others talked about education, sewing machines, and a house as their needs. At the same time, some (8.1%) confirmed that they would need nothing for their future occupation when they quit from their present job.

## Table 135: Type of Job FSWs want to do in Future

| Type of Work | Total | Brothel Based Sex Worker | Street Based Sex Worker | Night Club Sex Worker |
|---|---|---|---|---|
| Sell vegetables | 8.1% | 12.5% | 7.4% | 4.8% |
| Open a shop | 11.1% | 12.5% | 11.1% | 9.5% |
| Sell salads, Monhinga & cold drinks | 11.1% | 12.5% | 13.0% | 4.8% |
| Open a tailor shop | 12.1% | 16.7% | 11.1% | 9.5% |
| Work in garment factory | 2.0% | 4.2% | 1.9% | 0.0% |
| Open a grocery shop | 12.2% | 8.3% | 14.8% | 9.5% |
| Open a botique | 7.1% | 4.2% | 9.3% | 4.8% |
| Open a beauty parlor | 8.1% | 12.5% | 7.4% | 4.8% |
| Open a restaurant | 6.0% | 8.3% | 1.9% | 14.3% |
| Open a fancy store | 4.0% | 0.0% | 3.7% | 9.5% |
| Nothing but will get married | 7.1% | 4.2% | 7.4% | 9.5% |
| Trader | 4.0% | 4.2% | 3.7% | 4.8% |
| Open a betel shop | 4.1% | 0.0% | 7.4% | 0.0% |

*n=99*

# V. Regression Analysis Results

## 5.1. Data Analysis

Since the research was a quantitative study based on individual interviews with female sex workers and majority of the questions covered their perceptions on HIV/AIDS, most of the data are analyzed for descriptive statistics and some cross tabulations. To find out the relationship between FSWs' HIV knowledge and their safe sex practices or the actual use of condoms with their customers, OLS multiple regression is utilized in this paper. The following model is used in this analysis:

$$Safesex = \beta_1\ knowsexcontact + \beta_2\ HIVinfo + \beta_3\ log(fsexage) + \beta_4\ insistcon + \beta_5\ conmatter + \beta_6\ conpolice + \beta_7\ conlookdown + \beta_8\ log(monthlyhincome) + \beta_9\ sqrt(supportpeople) + \beta_{10}\ sqrt(sexboy) + \beta_{11}\ sqrt(sexwnc) + \beta_{12}\ sqrt(sexqsc) + \beta_{13}\ single1$$

Where

| | |
|---|---|
| safesex | = No. of safe sex practices among FSWs in the past 7 days |
| knowsexcontact | = No. of FSWs who mention that HIV can be transmitted through unprotected sexual contact |
| HIVinfo | = Number of FSWs who received HIV information |
| log(fsexage) | = Age of first sexual experience in logarithm value |
| insistcon | = FSWs who believe that they would not lose their customers by insisting condom use |
| conmatter | = FSWs who care about friends' perception on them if they were saw with a condom |
| conpolice | = FSWs who do not keep condom with them at the time of interview because they could have a problem when the police saw them with a condom |
| conlookdown | = FSWs who do not keep condom with them at the time of interview because they could be looked down by others if someone saw them with a condom |
| log(monthlyhincome) | = Monthly household income in logarithm value |
| sqrt(supportpeople) | = Square root value of number of people in the family supported by the FSWs |

| | |
|---|---|
| sqrt(sexboy) | = Square root value of number of boyfriends that FSWs had sex with in the past 7 days from interview date |
| sqrt(sexwnc) | = Square root value of number of whole night clients that FSWs had sex with in the past 7 days from interview date |
| sqrt(sexqsc) | = Square root value of number of quick sex clients that FSWs had sex with in the past 7 days from interview date |
| single1 | = Marital status of FSWs |

## 5.2. Dependent Variable

**"Safesex":** The number of safe sex practices among FSWs within the past 7 days is used in this paper. According to the questionnaire, the number sex practices among FSWs with different types of sex partners: husband, boyfriend, whole night client, and quick sex client, were asked and among the sex practices with those partners, type of sex; vaginal sex, oral sex and anal sex was differentiated as well. After that, FSWs were questioned about how many times they had the above mentioned sex types and how many of those sex practices were unprotected among different types of sex partners. Therefore, to generate a new variable for safe sex practices (use condom when they have sex) with their partners; "safe", all number of unprotected sex with different partners were summarized and given the dummy of "0" for safe sex practices and "1" of unprotected sex practices among FSWs in the past 7 days from the interview date.

## 5.3. Independent Variables

**"knowsexcontact":** The first independent variable "knowsexcontact" refers to number of FSWs who mentioned that HIV is transmitted though unprotected sexual contact. This variable is used to represents the knowledge of HIV/AIDS transmission and prevention among FSWs.

**“HIVinfo”:** This variable represents the number of FSWs who had heard or seen information about HIV/AIDS in the past 30 days from the date of interview.

**“Log(fsexage)”:** The variable ‘fsexage’ is the age at which the FSW had her first sexual experience. When the distribution of ages for first sex was tested using “gladder” command, it was found that both ‘log’ and ‘identity’ values were normally distributed, but when it was run in the regression, the logarithm value gives more statistical significance. Therefore, it was decided to use with log values for ‘fsexage’.

**“insistcon”:** This is the number of FSWs who confirmed that by insisting on using a condom, they do not think that they would lose their clients. It is a dummy variable with “1” for those who believe in it and “0” for those who do not.

**“conmatter”:** This variable stands for the number of FSWs who presume that if a friend saw her with a condom and whether they would approve or disapprove for this act would be a matter for them.

**“conpolice”:** This refers to number of FSWs who do not keep condom with them at the time of interview since they are afraid that they could have a problem when the police saw them with a condom.

**“conlookdown”:** This variable represents number of FSWs who do not keep condom with them at the time of interview as they believe that they could be looked down by others if someone saw them with a condom.

**“log(monthlyhincome)”:** Since normal value of ‘monthlyhincome”; monthly household income is too large, “309414.1”, the logarithm value was used after checking the histograms of variable transformations.

**“sqrt(supportpeople)”:** This means the square root value of number of people in the family who are supported by the FSWs. Square root value was used to get normal distribution with the result from ‘gladder’ test.

**“sqrt(sexboy)”:** The square root value was used for the number of boyfriends that FSWs had sex with in the past 7 days from interview date because it is closer to the normal distribution.

**“sqrt(sexwnc)”:** The same square root value for number of whole night clients that FSWs had sex with in the past 7 days from interview date, was utilized for better representativeness of normal distribution.

**“sqrt(sexqsc)”:** Square root value of number of quick sex clients that FSWs had sex with in the past 7 days from interview date, was used to get more normal distribution.

**“single1”:** This variable mentions number of FSWs who are single with the dummy value of “1” and the rest “0” express married, cohabitated or widowed.

## 5.4. Regression Analysis

In the first place of the regression analysis, the variable mentioning the number of FSW who reject the major misconceptions about HIV/AIDS; which is one of the UNGASS indicators, was included to measure the effect of misconception on safe sex practices. However, it was statistically very insignificant with p-value being (0.610) so the variable was dropped from the regression list. The following table mentions the results from the regression analysis.

**Table 146: Regression of Safe Sex Practices on HIV/AIDS Knowledge and Attitudes of FSWs**

| Independent Variables | Coefficients (t-values) |
|---|---|
| knowsexcontact | -0.08<br>(-1.28) |
| HIVinfo | -0.10<br>(-1.72) |
| log(fsexage) | -0.58<br>(-2.32) |
| insistcon | 0.19<br>(3.15) |
| conmatter | 0.10<br>(1.70) |
| conpolice | -0.10<br>(-1.50) |
| conlookdown | -0.11<br>(-1.42) |
| log(monthlyhincome) | -0.12<br>(-3.12) |
| sqrt(supportpeople) | -0.07<br>(-1.92) |
| sqrt(sexboy) | 0.36<br>(6.64) |
| sqrt(sexwnc) | 0.14<br>(3.85) |
| sqrt(sexqsc) | 0.09<br>(3.17) |
| single1 | -0.13<br>(-2.28) |
| Intercept | 3.39<br>(4.21) |
| Observations | 304 |
| R-squared | 0.29 |

| | | |
|---|---|---|
| Adjusted R-squared | 0.26 | |
| Breusch-Pagan test | P-value = | .53 |
| White test | P-value = | .59 |
| F-test | 9.24 | |

The value of R-squared (0.29) was large enough for this kind of KAP survey since most of the data collected were related to perceptions of the respondents with less numerical variables. It was noted that in most of the KAP research done, only descriptive statistics were utilized. The result in Table 36 mentioned that there seem to be other factor affecting the safe sex practices of FSWs together with their HIV knowledge since the coefficients for knowing sexual transmission of HIV/AIDS and those who had received HIV information in the past seven days, bore negative values with (t = -1.31, -1.67) respectively although the t-value is not that big enough to be statistically significant.

It was found that the age of first sexual experience has a significant effect on safe sex practices of FSWs. Since (t = -2.32), it was statistically significant and the result stated that girls who had their first sexual experience at their earlier age were (58%) more likely to practice unsafe sexual acts. By looking at the next variable, FSW who believed that they would not lose their clients by insisting condom use were more likely to perform safe sex practices (t = 3.15). However, FSWs who did not carry condom around to escape problems with policemen, and those who were afraid to be looked down on by others if they were seen with condoms, were more prone to have unprotected sex practices (t = -1.50).

It seems that the variable “monthly household income” had a negative relationship with statistically significant affect over the safe sex practices of FSWs (t = -3.12). An increase in monthly household income of FSWs could lead to the decrease in safe sex practices. In other

words, it could be that FSWs had to practice unsafe sex acts to increase their monthly household income level. The fact that FSWs were likely to have more unsafe sex practices with more family members to support at home (t = -1.92) supported this assumption.

The variable mentioning the number of FSW who had sex with their husbands in the past seven days was dropped from the regression list since only 5.92% of the married FSW had unprotected sex with their husbands and they were not statistically significant. Nevertheless, when it comes to sex practices among FSWs with their boyfriends, they were more likely (37%) to be protected with an increase in the number of boyfriends (t = 6.64).

It was also statistically significant for both the number of whole night clients and quick sex clients in having protected sex (t = 3.85 and 3.17) respectively. However, it was noted that FSWs were less likely to practice safe sex with their quick sex clients (Coef. = 0.15) compared to whole night clients (Coef. = 0.10). Finally, it was discovered that the marital status of FSWs also determined their safe sex practices (t = -2.28). The results said that single FSWs were more likely to practice unprotected sex when contrasted with married ones.

To better assess the data, the variance inflation factor (VIF) test was carried out to test multicollinearity problem. Since none of the variables had the VIF values of above 5, it was assured that there was no multicollinearity problem indicating none of the variables were highly correlated with one another.

Once more, the presence of heteroskedasticity was tested using Breusch-Pagan test and white test. As mentioned in Table 36, both tests mentioned high p-values (0.53 and 0.59) so that there was little evidence of heteroskedasticity and thus we do not reject the null hypothesis of

homoskedasticity. However, when F-test was run to test the overall significance of whether all the independent variables were jointly significant, it was found that F-value was too large (9.24) and p-value was (0.00) indicating all variables were jointly significant. Therefore, it was assumed that there was an indication of a level of heteroskedasticity present in this model. To fix this problem, heteroskedasticity-robust test statistics was applied and the new model was attained as follows:

**Table 37: Regression of Safe Sex Practices on HIV/AIDS Knowledge and Attitudes of FSWs using Heteroskedasticity-robust statistics**

| Independent Variables | Coefficients (t-values) |
|---|---|
| Knowsexcontact | -0.08 |
| | (-1.30) |
| HIVinfo | -0.10 |
| | (-1.66) |
| log(fsexage) | -0.58 |
| | (-2.32) |
| Insistcon | 0.19 |
| | (3.20) |
| Conmatter | 0.10 |
| | (1.78) |
| Conpolice | -0.10 |
| | (-1.48) |
| conlookdown | -0.11 |
| | (-1.43) |
| log(monthlyhincome) | -0.12 |
| | (-3.56) |
| sqrt(supportpeople) | -0.07 |
| | (-1.96) |
| sqrt(sexboy) | 0.36 |
| | (6.27) |
| sqrt(sexwnc) | 0.14 |
| | (4.02) |
| sqrt(sexqsc) | 0.09 |
| | (3.14) |
| single1 | -0.13 |
| | (-2.13) |
| Intercept | 3.39 |
| | (4.34) |
| Observations | 304 |
| R-squared | 0.29 |

Not much difference was found between the two models. However, Most of the variables from this table are more statistically significant by looking at their t-values. It assures that the FSWs knowledge of HIV/AIDS and their safe sex practices also depends on other factors such as their household income and family members that they are supporting. Therefore, the link between the lives of FSWs and poverty issue of the country is recommended for further study in the future.

However, the age of first sex experience has a direct and significant effect on sexual practices of the FSWs. Young girls with no education on HIV/AIDS are more likely to practice unsafe sex at their first sexual experience and this would lead to less safe sex practices when they grow old.

## 5.5. Policy Implications

According to the descriptive statistic results, the majority of sex workers (85.2%) had attained middle school and high school and above education. In this case, the government and other local and international NGOs should emphasize their education activities on the risks of HIV/AIDS through unprotected sexual contacts among middle and high school students. This way, they will be able to protect the risk behaviors among young generations of the country since short term knowledge or education may not affect sex workers, but earlier and more repeated education and training may be effective.

On the other hand, the fact that FSWs have been arrested by the policemen when they are found with condoms (sex working is illegal in Myanmar) has become an obstacle toward safe sex practices among FSWs. Therefore, the government and the NGOs should implement a

program which educates the policemen on condom use and safe sex practices while a specific law to arrest FSWs should be put into operation.

It is also found that FSWs were less likely to use condoms with quick sex clients compared to whole night client. The reason would probably be that they believed that there would be no big problem if they had sex for a short time. However, the reason behind this should be found out by conducting some qualitative surveys such as focus group discussions or individual in-depth interviews.

The majority of the female sex workers (87.17%) in this sample are supporting their family and the number of people whom they are supporting also has a significant effect on sex practices of FSWs. It appears that these girls have come into the sex industry as the result of poverty. To prevent this problem, socio economic activities should be introduced among FSWs by the government and other humanitarian organizations.

## VI. Recommendations

It is found that Female Sex workers are from a young population. Mostly, young women with low education level are coming to engage in commercial sex and the findings indicate that sex workers tend to have higher numbers of sex partners on new incomers of the commercial sex industry. Educating young women about reproductive health, HIV/AIDS, and prevention of sexually transmitted infections, ideally in middle school when many female sex workers describe becoming sexually active is required.

There are continuing fears of stigma attached to purchasing and carrying condoms. Although condoms are described as being widely available, accessible and affordable, many female sex workers continue to describe common barriers to purchasing male condoms. “Embarrassed to buy” and “potential negative judgments from staff at the shop” and “lack of privacy” are most frequently mentioned barriers.

Therefore, it is obvious that sex workers and their colleagues as well as those who are in contact with them; the pimps, the policemen need more education on condom use. In addition, the local community should also be educated with the importance of condom use for every sexual relations and the fact that buying condoms in public is not a shameful thing, instead, they should understand it as a symptom of good and healthy life style. Condom use should be introduced or advertise more publicly and repeatedly until the people become use to it and no more think of the word, "condom" as a "taboo" or "untouchable".

Although the majority of sex workers indicate consistent condom use for vaginal sex with their clients, many appear to overlook the importance of condom use in anal sex and oral sex acts with clients, and thus, partners should suggest an urgent need to modify information and

education programmes including IEC materials to reinforce messages about all modes of HIV transmission to include anal sex and oral sex.

On the other hand, consistent condom use with boyfriends and husbands is low and many sex workers are not convinced that unprotected sex with their regular partners can increase their risk of contracting HIV. Sex workers indicate a willingness to have sex with clients without a condom if there is a financial incentive. It is important to emphasize consistent condom use at every penetrative sex act with all male partners as the only effective way to prevent HIV and STI. The lack of condom use within the bonds of marriage and relationships in Myanmar is exposing both male and female partners within the relationship to HIV and STI risk.

Female sex workers describe difficulties negotiating with Myanmar men – with clients to use condoms, as well as with policemen who frequently harass them. Female sex workers would benefit from learning skills for negotiating with men that would better enable them to protect themselves. Despite those who may say this as unrealistic, female sex workers in Myanmar are standing on the margin of risking their lives depending on how much they can persuade their clients to have a protective sexual intercourse as described in this study. The ability of female sex workers in negotiating with their clients both forced and unforced to use a condom during sexual acts, therefore, plays a vital role for the security of their lives. It is recommended that a study should be done on how to persuade male clients in Myanmar to wear a condom during sexual intercourse.

Police harassment of sex workers continues. Sex workers continue to be afraid of carrying condoms with them for fear of arrest and harassment, as majority of sex workers do not have the confidence or feel they have the skills to negotiate with police in the situation where they

are found to possess condoms. Therefore, it would be more effective in the NOGs' attempts to help the FSW if these NGOs could include the policemen and pimps of the brothels, who are directly involved in the well beings of FSWs, by educating them.

Counseling for risk reduction would be a key role. Sex workers may be counseled on how to prevent situations where unprotected sex may occur and the consequences of having unprotected sex. However, it is not enough to support sex workers in condom provision and negotiation skills without strengthening activities that target their male clients.

Guesthouses and hotels are key venues for commercial sex activities. Advocacy with owners of these establishments for promoting condom use and increasing availability of condoms at guesthouses and hotels, as well as opportunities for providing information targeting male clients about methods of HIV transmission and using condoms are encouraged. Empowerment components, which support sex workers to work collectively to address barriers to safer sex, need to be implemented.

Despite high awareness of services that are available to sex workers, usage of such services appears to be low. Promoting the services of NGOs to sex workers for family planning and general medical care for themselves and their dependents is required. In addition, access to HIV testing and counseling, and HIV care and support services for sex workers as well as their families, could be strengthened. Barriers to and incentives for accessing these services requires further exploration.

The survey was conducted in March 2007 and thus, the data are not updated. However, one can easily see the seriousness of HIV prevalence and importance of HIV prevention among

female sex workers being one of the most-at-risk population in Myanmar through the study findings. It would be helpful for the country if this kind of study can be done regularly to measure the level of knowledge, attitude and practices among female sex workers in Myanmar.

Although the best solution to prevent HIV transmission is to have "One Faithful life-partner", who can stop the men from their lustful desire? As WHO has estimated, there are ‘tens of millions’ of sex workers worldwide, with clients ‘in the hundreds of millions’. Therefore, making the prostitution illegal usually leads to more harassment cases and STI and STD cases among female sex workers. In this case, how about legalizing sex work? By legalizing sex work, we will be able to control the number of sex workers and their HIV status by asking them to have medical check-ups, blood tests regularly and on the basis of the results, their licenses can be extended. Sex workers, as a result, can keep the condoms with them at anytime for their legal survival and the police become aware of condom usage among female sex workers. This is just another option and we need coordination and collaboration of the government, the United Nations, and all other local and international humanitarian organizations in eradicating HIV/AIDS from our country.

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# Appendix 1 - Questionnaire