# SITUATIONAL ANALYSIS OF YOUNG PEOPLE AT HIGH RISK OF HIV EXPOSURE IN THAILAND

**Synthesis Report** 













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SYNTHESIS REPORT III

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## **ABBREVIATIONS**

CBO Community-based organization

FGD Focus group discussion FSW Female sex workers

INGO International non-governmental organization

MSM Men who have sex with men

MSW Male sex workers

NGO Non-governmental organization

PWID People who inject drugs
RDS Respondent-driven sampling

RTA Royal Thai Army TG Transgender

WHO World Health Organization
YKAP Young key affected populations

### **EXECUTIVE SUMMARY**

The main goals of this project are to review the situation of young key affected populations (YKAP) HIV risk behaviours in Thailand, review the present policy and programmatic response for YKAP, identify gaps and promising practices for YKAP, and determine strategic future policy and programming interventions for YKAP. This analysis of young people at higher risk of HIV exposure aims to assist in strengthening national capacities for improved policy advocacy and informed decision-making on issues of equity, social inclusion, and the protection of youth at higher risk of HIV exposure by offering an evidence base.

#### **Methods**

For this study, both qualitative and quantitative data were collected. Qualitative data was collected through key informant interviews and focus group discussions (FDGs). The purpose of they key informant interviews was to identify current social support systems, strategies used by those support systems to reach YKAP, and areas where such support services are lacking for YKAP. FDGs with adolescents focused on collecting primary data on risk, protective factors and behaviours, access to and use of services, as well as perspectives on needs for new and improved services. A total of 19 key informant interviews and FDGs were completed in four provinces. From these qualitative data, the research team identified 23 common themes separated into seven factors for discussion.

To collect and analyse quantitative survey data to investigate the prevalence of high-risk behaviours amongst young people at higher risk for HIV exposure, this study used the Respondent Driven Sampling (RDS) methodology. RDS is appropriate in this context, given the number of youth in the identified subgroups is unknown and this therefore precludes options such as systematic random sampling or cluster random sampling. A total of seven adolescent networks provided RDS data for this study. Populations included in RDS by specific network were men who have sex with men (MSM), non-Thai migrants, transgender (TG) youth, and

female sex workers (FSWs). Total number of surveys per population ranged from 267 to 280 (with a desired sample size of 267 surveys per network).

### **Findings**

Adolescent respondents who participated in FDGs overwhelmingly reported a reliance on close relationships for social support and health information. Through the course of this project it became evident that adolescents who had close relationships or family support were less likely to engage in higher risk behaviours than those without. In addition, both adolescents and organizations working with adolescents saw family as a support structure capable of promoting healthy behaviours. Another common theme throughout this project regarding healthcare was adolescents' experience in public hospitals. Many adolescents conveyed stories of how the healthcare experience lacked confidentiality, which they felt dissuaded adolescents from accessing healthcare.

From both qualitative and quantitative data, the role of peer support on YKAP in terms of accessing services and information, as well as impacts on risk behaviours is evident. Across all populations included in this study, YKAP reported high levels of reliance on close relationships for social support and health information. Information from this study highlights the role of social support, specifically from peers, and points out that this support can have both positive and negative impacts on the behaviours of YKAP.

With the proper development of programmes that involve social support networks, such as peer health education, data from this study show that significant, positive results in increasing healthy behaviours, access to accurate information, and its overall accessibility for YKAP may be enhanced. However, given the information provided in qualitative data, specifically from YKAP themselves, it is important to keep in mind the diverse nature of social networks when planning their involvement in programmes or programmes to enhance social networks.



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Given the diverse nature of YKAP populations in Thailand and their specific needs, input from adolescents in these populations is essential for the design and implementation of programmes to increase healthier behaviours and access to services. While the overall coordination between service providers has been noted as important in improving programmes, as well as increasing sensitivity among service providers working with YKAP, decisions about programme design appear to be most effective if YKAP are directly involved and play a significant role as partners in the development of these programmes.

#### **Recommendations**

Although similarities in risk and protective factors exist across YKAP populations in Thailand, the unique nature of specific YKAP populations in the country calls for programmes designed at the community level and with significant input from, and involvement of, young people themselves. This report identifies policy-level, programme/service-level, as well as research-specific recommendations. Of particular significance for national-level planning are recommendations for the direct inclusion of adolescents in programme planning, increased use of multi-media for education campaigns, and

improved preparation and training for health staff, particularly those who work face-to-face with young people in order to increase sensitivity regarding working with YKAP and appropriate practices to reduce, and ultimately eliminate, stigma and discrimination at health service access points. Furthermore, based on the findings of this research study, emphasis should be put on increasing programmes that utilize peer counselling for young people in higher risk groups to enable more effective discussions and dissemination of information on key factors and risk behaviours. Finally, continued research is needed to develop evidence-based strategies to meet the needs of YKAP who face higher risks of HIV infection.

Our findings suggest that promoting the improved quality of discussions and information about HIV/AIDS with all young people is needed, irrespective of the specific population to which they might belong within the overall group of YKAP. They also indicate that strategies involving adolescents enable a better understanding of the health-seeking practices of young people, and help promote safer lifestyles and improved access and uptake of prevention measures.

### **PROJECT OVERVIEW**

The main goals of this project are to review the situation of young key affected populations (YKAP) HIV risk behaviours in Thailand by:

- reviewing the present policy and programmatic response for YKAP
- identifying gaps and promising practices for YKAP
- determining strategic future policy and programming interventions for YKAP.

This project began with a Scoping Mission conducted in February and March 2013, followed by the start of data collection activities.

To achieve the study objectives outlined by The National AIDS Management Center, the study includes three units of analysis and combines qualitative and quantitative measures:

- An analysis of factors related to HIV exposure risk using primary and secondary data
- A health and social service assessment using information from primary data collection on specific needs to highlight gaps and areas for collaboration
- An ecological approach to integrate findings on the situational analysis of young people at higher risk of HIV exposure

This analysis of young people at higher risk of HIV exposure aims to assist in strengthening national capacities for improved policy advocacy and informed decision-making on issues of equity, social inclusion, and protection of youth at higher risk of HIV exposure by offering an evidence base.

## **BACKGROUND**

While Thailand is considered an early achiever of Millennium Development Goal 6, 'halting the spread of HIV', there has not been a consistent decline in HIV incidence across all segments of the population in recent years. This is illustrated by the fact that new infections have risen slightly in certain social networks of young people despite a gradual drop in overall HIV prevalence. A critical finding from the Report of the Commission on AIDS in Asia (UNAIDS 2008) is that in Asia, where countries are primarily characterized by low-level and concentrated epidemics, 95% of new HIV infections among young people occur in young people at higher risk of HIV exposure including those involved in sex work, those injecting drugs, and young men having unprotected anal sex with men.

While young individuals can be subject to the same risks faced by older persons, their level of vulnerability can be amplified if, for example, they lack the life skills to control exposure to risk situations and environments. The transformation of traditional family structures has also led to

new social problems, including drug abuse, as well as sexual and economic exploitation. While HIV transmission in Thailand is generally under control except among the most at-risk population groups (e.g. people who inject drugs (PWID), adolescents, men who have sex with men (MSM), female sex workers (FSW), etc.), stigma and discrimination against subcultures as well as against people living with HIV/AIDS continues (UNICEF 2012).

Socio-economic pressure has led to large-scale internal migration with young people moving to urban areas for work with yet unclear social consequences. Thailand's economy has also been relying increasingly on large-scale cross-border migration from neighbouring countries. However, many of the estimated 2.5 million non-Thai migrants reside in the country unofficially (Nigoon, Siriporn and Mandhana 2010); presenting challenges for the government in terms of health surveillance and service delivery. Even regarding migrants with official documentation to stay in Thailand, challenges

such as language and the accessibility of health services access points still remain.

Under-implementation of national policies and plans is a major challenge to fulfilling the rights of youth. Although a substantial body of child protection legislation has been adopted, it has not been matched by the allocation of adequate resources to ensure full implementation. There are a set of underlying barriers to effective social action for the further realization of adolescent rights, such as prevailing social values, stigma, and other attitudes.

#### **General Youth Risk Behaviours**

Thailand is facing a new rise in HIV and sexually transmitted infections (STI) cases, especially among young people, with 70% of all STI cases occurring in this age group. The 2012 UNGASS Global AIDS Response Country Progress Report in Thailand noted that the highest number of STIs and unwanted pregnancies are among 15-24 years old, suggesting that safe sex messages are not reaching this age group. This same report highlights that parental consent is also needed for voluntary counselling and testing if a young person is under 18 years of age – significantly reducing the confidentiality of an HIV test. Beyond confidentiality of testing, another barrier to HIV services for young adolescents may be their reluctance to disclose to parents and guardians that one is sexually active or demonstrating other risk behaviours, including the use of drugs (UNESCO, UNFPA, UNAIDS, UNDP 2013).

The findings of the National Sexual Behavior Survey conducted in Thailand in 2006 identified a trend of declining age of first intercourse in recent years, with males having first intercourse at significantly earlier ages than females. The study findings illustrated a two-fold major shift in Thai sexual culture: first, towards higher pre-marital sex within relationships and second, declining sex with sex workers. Tangmnkongvorakul (2010) also discussed this trend when stating that sexual norms among young Thai people are shifting rapidly.

## Key Points: General Youth Risk Behaviours

- Thailand is facing a new rise in HIV and STI cases, especially among young people, with 70% of all STI cases occurring in this age group.
- The highest number of STIs and unwanted pregnancies in Thailand are among 15-24 years old, suggesting that safe sex messages are not reaching this age group.
- A trend of declining age of first intercourse in recent years, with males having first intercourse at significantly earlier ages than females.
- Alcohol consumption and substance use have been shown to further exacerbate poor adherence to HIV prevention measures and increase sexual risk-taking among young people.

"Young Thais now enjoy frequent social interaction between the sexes and many young men and a growing percentage of young women report premarital sexual experience. Some urban Thai men no longer discriminate against women who have had premarital sexual relations with other men, although others still prefer to marry a virgin."



There are also several studies that explore patterns of sexual risk-taking among young people, as well as a range of important factors that influence such behaviours. For example, alcohol consumption and substance use have been shown to further exacerbate poor adherence to prevention measures and sexual risks. Sirian and Guest (2009) established a link between the use of alcohol and drugs in sexual relationships. In their study, alcohol was seen by youth as allowing people to more easily break

traditional norms of sexual behaviour. Illegal drugs, which were viewed as being widely available and easily accessed, were seen as being used to increase sexual pleasure. In addition, Chokechai (2007) reiterated that alcohol and substance use might further exacerbate poor adherence to prevention measures and increase sexual risk-taking among young people because of the increased likelihood of these behaviours while under the influence of alcohol and illicit drugs.

## Key Points: Men who have sex with men (MSM)

- Of new HIV infections in Thailand, 41% of people newly infected are MSM.
- Young MSM in Thailand (15-21 years) have a 12.1% rate of new HIV infections.
- Despite Thailand's numerous innovations in the global AIDS response, MSM have been virtually absent in national strategic plans until 2007.
- Evidence suggests that young MSM engage in sex earlier than heterosexual peers.

## Key Points: People who inject drugs (PWID)

- Within the first few years of Thailand's epidemic, HIV prevalence among PWID rose from 0 to 40%.
- Despite halving HIV prevalence among PWID to 22% as of 2011, there are still 40,300 PWID in Thailand potentially at risk of HIV infection using unsafe injection methods.
- Survey data from many countries in the Southeast Asia region suggests that many young people initiate injection drug use in their late teenage years or early 20's.
- A survey of 2,231 people who inject drugs in Thailand found that most reported the age at first injecting ranging from 15-27 years.

## Key Points: Non-Thai migrants

- Language barriers, financial barriers, and frequent migration can prevent non-Thai migrants from accessing information about HIV/AIDS and healthcare.
- Comprehensive HIV knowledge has been reported as being low among this population.
- Inadequate information and the means for its communication limits perceptions of HIV risk among adolescent migrants.
- Migrants with lower levels of formal education had less knowledge of HIV/ AIDS and less condom use with nonregular partners.
- Exposure to HIV/AIDS education, however, was shown to have a positive effect on HIV/AIDS knowledge and condom use.

## Key Points: Female sex workers (FSW)

- Data from the HIV Sentinel Surveillance survey among venue-based FSW in Thailand found decreasing HIV prevalence over time: 2.8% to 2.2% to 1.8% in 2008, 2010 and 2011, respectively.
- Non-Thai FSW often lack access to free services and essential HIV prevention information.
- Organizations face challenges providing services to younger FSW as adolescents under the age of 18 years are considered to be "commercially sexually exploited", as defined by the Convention on the Rights of the Child.

# ETHICS AND SAFETY CONSIDERATIONS

The protocol for this study was submitted to, and approved by, the ethical review committee at Thammasat University.

## STUDY METHODS

## **Specific YKAP Populations**

This study involved primary data collection from the following populations:

- 1. Young females who exchange sex
- 2. Young men who have sex with men
- 3. Young non-Thai migrants
- 4. Transgender youth
- 5. Youth who inject drugs (FGD only)
- 6. Male sex workers (FGD only)

#### **Inclusion criteria**

- Young people between 15 and 24 years of age
- Respondent must live in the area (i.e. not a temporary stay <1 year)</li>
- Self-identified as being a member of a network identified by the research team for data collection

#### **Exclusion criteria**

- · Persons with disability due to mental impairment
- Minors aged 10-14 years

#### **Site Selection**

Four provinces (Chiang Mai, Bangkok, Ubon Ratchatani, and Songkhla) were chosen as sites for this project. Sites were selected based on the following criteria:

#### **Inclusion criteria**

- High reported HIV incidence rate
- Presence of youth engaged in high risk behaviours
- Strength of connection between local partners and higher risk group youth

#### **Exclusion criteria**

• Insufficient data on target study populations e.g. age groups, gender, and higher risk behaviour groups to facilitate a quantitative analysis.

## **Documentary Review**

In addition to primary data collection, a documentary review was conducted to collect information from published sources and facilitate an analysis of factors related to HIV exposure. A systematic approach was applied to collect and review texts and documents produced for distribution during 2000-2012, including international, national, and provincial source materials such as: scientific publications, government documents, INGO and NGO publications, unpublished documents, and other written sources in hard copy or electronic format.

## **Qualitative Data Collection and Analysis Methods**

Qualitative data was collected through key informant interviews and FGDs. FGDs were semi-structured and entail qualitative data collection within a group of 6-8 YKAP from each network.

Key informant interviews were semi-structured, encompassing Thai Government organizations, international non-governmental organizations (INGO), Thai non-governmental organizations (NGO), and community-based organizations (CBO). The purpose of these interviews was to identify current social support systems, strategies used by those support systems to reach YKAP, and areas where needed services are lacking for YKAP.

A total of 19 key informant interviews and FGDs were completed in Chiang Mai, Ubon Ratchathani, Songkhla, and Bangkok provinces.

## **Quantitative Data Collection and Analysis Methods**

To collect and analyse quantitative survey data to investigate the prevalence of high-risk behaviours amongst young people at higher risk for HIV exposure, this study used the respondent-driven sampling (RDS) methodology (Johnston 2013). This approach is appropriate in this context, given the number of youth in the identified subgroups is unknown and therefore precludes options such as systematic random sampling or cluster random sampling.

RDS selects respondents from a social network, rather than a sampling frame. Researchers and data

## **Respondent-driven sampling information**

A total of seven adolescent networks provided RDS data for this study:

- Young MSM in Chiang Mai (8 seeds; 9 waves; 272 surveys)
- Young MSM in Bangkok (6 seeds; 10 waves; 273 surveys)
- Non-Thai migrant youth in Chiang Mai (5 seeds; 8 waves; 280 surveys)
- TG youth in Songkhla (6 seeds; 7 waves; 272 surveys)
- Young FSW from Chiang Mai (6 seeds; 6 waves; 268 surveys)
- Young FSW from Ubon Ratchatani (6 seeds; 21 waves; 273 surveys)
- Young FSW from Bangkok (6 seeds; 6 waves; 270 surveys)

collectors collaborate to select a small number of initial survey respondents ('seeds') who, in turn, recruit others to participate in the study. Peer-to-peer recruitment continues in a series of 'waves' until the desired sample size is reached (Salganick & Heckathorn, 2004). RDS, therefore, is a structured form of 'snowball sampling' which uses a mathematical model that weights the sample to compensate for the fact that the sample was collected in a non-random way. As such, it does not contain the same forms of biases that snowball or other non-random forms of sampling include. RDS has proven feasible and valuable in recruiting hidden populations of various kinds (Yeka, et. al, 2006 and Heckathorn, et. al, 2002).

During data collection, the study team provided a fixed number of recruitment cards (3) to each seed respondent and the seed respondent was asked to invite three eligible youth within their network to participate in the study. Each subsequent respondent was also provided with three recruitment cards and data collection continued until the sample size (267 surveys per network) was reached. Recruitment cards expired two weeks from the date of issue. Towards the end of the data collection for each network, data collectors stop providing recruitment cards so that by the end of the survey, no unexpired cards remained in the population.

The second component of the RDS methodology is weighted data analysis. Data analysis for this study was conducted in RDS Analyst (www.hpmrg.org). Data is inversely weighted by the social network size of the individual so that inferences can be made about the entire survey population, not just the sample.

In order to test the relationships between predictors and outcomes in the study, weights were calculated using the Gile Successive Sampling estimator (Gile 2011) and exported from RDS Analyst into Stata 12.1 for further analysis. This methodology is in keeping with standard practice as documented in the Introduction To HIV/AIDS And Sexually Transmitted Infection Surveillance Module 4: Introduction to Respondent-Driven Sampling published by the World Health Organization and UNAIDS (WHO & UNAIDS, 2013).

Each predictor was first tested for statistical significance (p<0.05) in a single regression model for each outcome. Predictors found to be significant were then retested in combination as a multivariable regression analysis. Though multivariable analyses were conducted, only single regressions are discussed here to ease comparison within and between different locations and populations.

## LIMITATIONS OF THE STUDY

Primary data collection for this study was limited to four provinces in Thailand, despite the inclusion of diverse YKAP populations. Therefore, findings from this study may not be able to be directly applied to provinces not included in this study. In addition, despite efforts to conduct primary data collection with very young adolescents (15-17 years old), this study largely lacks inclusion of respondents under the age of 17 years; however, data reported by respondents does capture information on higher risk behaviours during their younger years. General populations of young persons in Thailand (i.e. not considered to be at higher risk of HIV) were not included in the primary data collection, which results in a lack of direct comparison between YKAP and the general youth population. Finally, regarding social support, the current study cannot provide more specific information regarding which individuals make up the social structure in which youth in the study populations find this support.

## **FINDINGS**

Results of the RDS survey data are presented by population in the full report, along with data tables. This synthesis report presents results that highlight similarities and differences between populations.

## **All Populations**

## **Network descriptive statistics**

The mean age of MSM in Bangkok was the highest, followed by FSW in Chiang Mai. FSW respondents in Chiang Mai were restricted to population members over the age of 18 years, while all other networks' selection criteria allowed youth as young as 15. The population with the lowest average age was MSM in Chiang Mai.

Non-Thai migrants were the only population including both sexes, of which 61% were male and 38% were female. Populations were almost exclusively Thai, with the exception of non-Thai migrants, of which 97% were Burmese, and FSW from Ubon, who were all from Lao PDR.

In all populations, the majority of youth were single. FSW from Bangkok had the highest proportion in a relationship, while non-Thai migrants had the highest proportion of married youth. FSW populations from Chiang Mai and Ubon Ratchatani and non-Thai migrants had the highest proportions of children. Living situation varied among all populations, both within study sites and within specific population networks. For example, the highest proportion of MSM youth in Chiang Mai lived in dormitories, while the highest proportion of MSM youth in Bangkok lived alone. Employment status also varied, with most MSM in Chiang Mai and TG youth in Songkhla being unemployed, and most youth in all other networks employed full-time.

School enrolment varied widely, from 6% of non-Thai migrants to 98% of FSW in Bangkok. The two populations with markedly lower enrolment were non-Thai migrants in Chiang Mai (6%) and FSW in Ubon (40%). Both of these populations reported "having to work" as their main reason for not being enrolled in school. Among youth who were enrolled in school, FSW in Bangkok and MSM populations in both Chiang Mai and Bangkok had the highest proportion attending every day or almost every day, while FSW populations in Chiang Mai and Ubon Ratchatani had the highest proportion never or rarely attending school.

FSW in Bangkok and MSM in both Chiang Mai and Bangkok attained the highest educational levels (58% of FSW in Bangkok, 38% of MSM in Chiang Mai, and 50% of MSM in Bangkok had obtained a bachelor or vocational degree and 94%, 85%, and 86%, respectively, had an education beyond Mattayom 6) compared to non-Thai migrants (37% completed education beyond Mattayom 6) and FSW in Chiang Mai and Ubon Ratchatani (10% studied beyond Mattayom 6 in Chiang Mai, 5% in Ubon). FSW in Ubon and non-Thai migrants have the lowest expectations of completing high school and going to college, while MSM in both Chiang Mai and Bangkok, and FSW in Bangkok have the highest expectations and aspirations.

## Key indicators – risk and protective behaviours

Injection drug use (for non-medical purposes) was low among all networks, with non-Thai migrants (1%) and TG youth (1%) having the highest proportion. Most populations "sometimes" used alcohol or drugs before sex, whereas TG youth had the highest proportion that "never" did so (43%). The proportion of youth that used drugs or alcohol "most of the time" or "always" before sex ranged from 6% of non-Thai migrants up to 35% of FSW in Bangkok.

The proportion of youth who had ever had sex was highest among MSM in Bangkok (96%), followed by FSW in Chiang Mai (94%), and non-Thai migrants (58%). Of those who were sexually active, non-Thai migrants had the lowest percentage using a condom at last sex (37%). In contrast, 70% or more of all other populations used a condom at last sex. For populations that could be compared geographically, condom use in Chiang Mai for both MSM and FSW was 25% and 16% lower than condom use among the same populations in Bangkok.

From qualitative data, it was recognized by most respondents that indiscriminate sexual behaviour and unprotected sex were factors facilitating HIV transmission. Respondents providing qualitative data, across all included populations generally understood the importance of condoms and knowing their partners' sexual history, yet commented that safe behaviour is often forgotten moments prior to sexual intercourse.

"Some people always have a condom with them, but when it comes the time to have sex it is too late to put on the condom. Yes, everyone knows it. However, sometimes we got carried away so it is too late to put on the condom. I always watch out, if they do not use condom, I will refuse to have sex with them."

## **MSM NGO Focus Group**

"I think most of us know that most of the problems of HIV come from sexual relationships and most of the risk of HIV comes from sexual relationships... so we are supposed to avoid sexual relationships...but I think that young people hear these things and some even believe these things, but when it's actually the time to do something or avoid something they either don't care enough or don't remember about these things."

## **Migrant Focus Group**

Among all populations, non-Thai migrants had the highest proportion paying for sex in the last 12 months (27%). Excluding FSW, the highest proportion receiving payment for sex in the last 12 months was TG youth (35%), followed by non-Thai migrants (19%).

## Key indicators – access to services/social support/information

Proportions of youth who know where they can be tested for HIV ranged from a low of 31% among FSW in Bangkok to a high of 89% among MSM in Bangkok.

Proportions of youth who had been tested for HIV in the past 12 months varied widely – from a low of 12% of FSW in Chiang Mai to a high of 73% of MSM in Bangkok.

When asked with whom they had talked about HIV/ AIDS in the past 12 months, the highest proportion of MSM in both Chiang Mai and Bangkok, TG youth, and FSW in Ubon and Bangkok had talked with

friends, while the highest proportion of non-Thai migrants and FSW in Chiang Mai had talked with no one. Overall, the proportion of youth who had talked to anyone about HIV/AIDS in the past 12 months ranged from a low of 48% among non-Thai migrants to a high of 100% of MSM in Chiang Mai.

Data from the RDS survey indicates that friends are an important source of information regarding HIV. These findings are supported by qualitative data where respondents frequently reported relying on peer relationships for HIV-related and other health information. YKAP groups highlighted the exchange of health information that either contributed to higher risk behaviour, such as incorrect messages, or encouraged healthier behaviours, such as guiding peers through testing in the healthcare system.

"For us, we are young and therefore some young people believe anything or will try anything, especially if we think others are doing it or older people tell us to try. So, we can really fall into a trap of taking many different kinds of risks maybe because we are so curious or we are easily influenced by people around us. Sometimes young people don't want to do something, but it is the way to fit in. Also, I think that it's easy for people who are the same age to communicate."

## **Migrant Focus Group**

"When we feel very concerned about our health and overwhelmed, I think a lot of us talk with our family and friends. This helps some. We are still concerned, but less than before."

## **MSW Focus Group**

Finally, only 31% of FSW in Bangkok and just 50% of non-Thai migrants and FSW in Chiang Mai had received any HIV-related information, knowledge, or services in the past 12 months, while over 80% of the rest of the populations had received the same.

## Drug and substance use

Across all populations, tobacco and alcohol were more commonly used than other substances.

Tobacco use was highest among non-Thai migrants (49%) and lowest among MSM in Bangkok (3%). Tobacco use started at a younger age among TG youth than other populations. Tobacco use did not cause problems for youth often in the past three months.

MSM in Chiang Mai and non-Thai migrants had the highest use of alcohol (79% in both populations), while MSM in Bangkok had the lowest (28%). The highest proportion of MSM in Bangkok and TG youth began consuming alcohol at age 15, while all other populations had the highest proportion begin at age 18 or older. FSW in both Chiang Mai and Ubon had the highest proportion of daily use of alcohol (36% and 40%, respectively). Most youth reported that alcohol had not caused them problems in the past three months; however, 34% of FSW in Ubon reported that alcohol caused them daily problems in the past three months.

Rates of other drug use were relatively low, but highest among non-Thai migrants.

FSW in Bangkok did not report any drug or alcohol use. There are several possible reasons for this. It is possible that FSW in Bangkok do not ever use any substances, however, the research team believes use has been underreported, especially for tobacco and alcohol. Participants may have underreported substance use because of past negative experiences where they have been characterized incorrectly based on data they gave for alcohol and drug use. They may also have felt shy to answer directly about drug or alcohol use, particularly the drug questions given that they are illegal substances, or they may have purposely responded no because they don't want to perpetuate poor images of FSW. We cannot know from the data to what extent substance use was underreported or for what reasons.

### Sexual behaviour

Age at first sex was lowest among MSM in Bangkok, with 55% of the population engaging in sex at or below the age of 15 years. Age at first sex was highest among FSW in Ubon and non-Thai migrants.

Besides FSW populations, the next highest number of sexual partners was among TG youth with an average of 13.22 partners and a median of six partners in the past six months. The population with the lowest number of sexual partners was non-Thai migrants, with an average of 1.33 and a median of one partner in the past six months.

#### Scale data

Estimated percentages of depression ranged from 26% among FSW in Ubon to 92% among FSW in Bangkok. The percentage of depression among FSW in Bangkok was statistically significantly higher than any other population studied.

Non-Thai migrant youth had the highest percentage of "low" social support (23%). TG youth (1%) and FSW in Ubon (1%) had reported "low" social support the least.

Given that all populations included in the RDS survey had high levels of social support, it is important to look at the impacts of social support on levels of YKAP HIV-related knowledge and accessing services. From qualitative data, the

role of social support, particularly peer support, was quite apparent. Organizations interviewed also explained how they capitalized on social networks by including family and friends of YKAP in their outreach strategy. Both adolescents and organizations working with adolescents saw peers and family as support structures capable of promoting healthy behaviours. This is best demonstrated within organizations serving PWID and non-Thai migrants. In these cases, outreach and education activities targeted the community where PWID or migrants live, either before or in concert with outreach to the adolescents themselves. This strategy sets the stage for support not only from the CBO, but also from family and friends who are equal partners in alleviating higher risk behaviour. One CBO worker commented that outreach to PWID without the family and community ultimately fails, as the adolescent is likely to relapse into drug use.

Likewise, adolescents within non-Thai migrant focus groups overwhelmingly stated that behaviour of their peers largely depended on whether or not they came to Thailand with family. Adolescents commented that they are generally encouraged to behave conservatively in their relationships with the opposite sex while living in their country of origin. On the other hand, there was general consensus that adolescents who are migrants living in Thailand may find themselves without that family influence, and therefore be more likely to engage in higher risk behaviour such as drug abuse or indiscriminate sex.

Adolescents who are TG or MSM generally felt that family may not have the same positive influence. TG individuals discussed the reaction of their family members during their transition into non-traditional gender roles. Parents had strong reactions showing disapproval during and after that transition with reactions ranging from verbal rebuke to moving the adolescent out of the family altogether. In one case where the family was open, public pressure inhibited the parent's ability to be fully accepting of their child. That said, it should be noted that there were few cases where one family member was fully accepting of their child's non-traditional gender role.



Respondents from qualitative data collection discussed family relationships and felt the conservative nature of their cultures make it disadvantageous to be transparent about one's sexuality and sexual behaviours. This reaction by family towards an adolescent's non-traditional gender role, or their lack of knowledge of the adolescent's sexual preference, eliminates the support structure that both PWID and heterosexual non-Thai migrants identified as a significant contribution towards healthy behaviour.

Condom self-efficacy scores ranged from a low of 49.49 among non-Thai migrants to a high of 57.88 among MSM in Bangkok, on a scale of 14 to 70.

Low self-esteem was rare among all populations, with no one categorized has having low self-esteem among MSM in Chiang Mai and FSW in Ubon or Bangkok. Less than 1% of the following populations had low self-esteem: MSM in Bangkok, TG youth, non-Thai migrants, and FSW in Chiang Mai.

## HIV education and perceived risk

MSM in Bangkok showed the highest level of HIV knowledge with 64% of the population responding correctly to all six questions about HIV. This was statistically significantly higher than any other population.

FSW in Bangkok and Ubon had the highest perceived level of HIV risk, with 97% of FSW in Bangkok and 88% of FSW in Ubon at "some risk" or "high risk." Non-Thai migrants had the lowest perceived level of risk at 23% with "some risk" or "high risk."

FSW in all three locations had different reasons for perceived risk of HIV compared to the other populations. Among the other populations, having multiple partners and using condoms irregularly had the highest proportions. Having multiple partners was also among the top reasons for both FSW populations, however, the other top reason for FSW was "high risk job" in Chiang Mai and Bangkok and "condom broke" in Ubon.

All populations had the same top two reasons for perceiving themselves to not be at risk for HIV - always using a condom or having only one sexual partner.

Of those tested for HIV in the past 12 months, FSW in Chiang Mai were statistically significantly less likely to know the results of their latest test with 23% of this population knowing their results. Percentages in the other populations included in this study ranged from 49% to 83%.

When asked what age someone should first be taught about using a condom to avoid HIV infection, the majority of most populations suggested either before 12 years of age or at age 13. Non-Thai migrants and FSW in Ubon and Bangkok suggested higher ages.

Among those in school in the past 12 months, a statistically significantly larger proportion of MSM and TG youth had been taught about HIV/AIDS and the prevention of HIV infection (between 57% and 67% for HIV and 80% to 83% for prevention) when compared to young non-Thai migrants and FSW (between 18% and 35% for HIV and 29% to 50% for prevention).

#### **Condom access**

The most frequently mentioned places to get condoms – either a convenience store or an outreach worker – were the same across four populations. The populations that named different sources for condoms were MSM in Bangkok, non-Thai migrants, and FSW in Bangkok. MSM in Bangkok obtained condoms from convenience stores or friends, non-Thai migrants, who had the lowest proportion ever getting condoms, received condoms most often from health facilities or friends, and FSW from Bangkok most often obtained condoms from convenience stores and drug stores.

A statistically significantly lower proportion of non-Thai migrants and FSW in Bangkok had received condoms in the past 12 months (40% and 34%, respectively), compared to a range of 70% to 87% among other populations. Non-Thai migrants and FSW in Bangkok were also statistically significantly less likely to be able to obtain a condom every time they needed it (44% and 37%) compared to all other populations. FSW in Ubon had a statistically significantly higher proportion receiving free condoms and obtaining a condom every time they needed it when compared to FSW in Chiang Mai and Bangkok.

For both MSM in Chiang Mai and non-Thai migrants, being "too shy" was the top reason youth were unable to obtain a condom every time they needed one. For both FSW in Chiang Mai and FSW in Bangkok, the main reason they could not obtain a condom every time they needed one was that the shops were too far away.

Knowledge of where to obtain a female condom was low among all groups, and ranged from 14% of non-Thai migrants to 44% of FSW in Chiang Mai.

## DISCUSSION

From both qualitative and quantitative data, the role of peer support on YKAP in terms of accessing services and information, as well as impacts on risk behaviours is evident. Across all populations included in this study, YKAP reported high levels of reliance on close relationships for social support and health information. In addition, organizations commented on how inclusion of family and friends of YKAP in outreach strategies has the potential to increase effectiveness of those programmes. For many of the populations included in this study, the level of perceived social support was found to be a significant predictor of various behaviours. For example:

- Higher odds of condom use at last sex with higher levels of social support (TG, FSW)
- Decreased reported frequency of using drugs or alcohol before sex with higher levels of social support (non-Thai migrants, MSM, TG)
- Higher HIV knowledge scores among adolescents with higher levels of social support (MSM, non-Thai migrants, TG, FSW)
- Increased odds of ever testing for HIV with higher levels of social support (MSM, FSW)
- Higher odds of receiving services or information related to HIV with higher levels of social support (MSM, FSW Chiang Mai); however, also see lower odds of receiving information or services if higher levels of social support (FSW Bangkok)

Information from this study highlights the role of social support, specifically from peers, and points out that this support can have both positive and negative impacts on behaviours of YKAP. For example, while increased social support increased odds of healthier behaviours and access to

information, it was also mentioned in qualitative data that peers and informal social support might play a role in the exchange of inaccurate information about HIV/AIDS. However, given this limitation, it is still clear that social support, friends, family, and peer networks play a role in decision making of YKAP and must be taken into account for programme planning.

"The majority of the influence on young people around here comes from others — I mean other people — some say that mostly TV and movies influence us, but it really is our friends or the people we are around who influence us and how we make decisions."

## **Migrant Focus Group**

With the development of programmes that involve social support networks, such as peer health education, data from this study show that significant, positive results in increasing healthy behaviours, access to accurate information, and overall accessibility for YKAP may be enhanced. Furthermore, concerning education on sexual and reproductive health and HIV prevention, in 2007 the UNDP published the report "Building Strength" on Strength: Lesson from community responses to HIV in Northern Thailand". This report established that peer education and the "full involvement of youth" are the most effective means to educate youth on sexual and reproductive health and HIV prevention and "is crucial for the development of successful sexual and reproductive health and HIV prevention programmes".

However, given the information provided in qualitative data, specifically from YKAP themselves, it is important to keep in mind the diverse nature of social networks when planning their involvement in programmes or programmes to enhance social

networks. Previously, the UNAIDS report on sex and youth (UNAIDS 1999) recognized that there is little to be gained in developing HIV/AIDS programmes among young people from the homogeneous, simplistic, universalizing vision of young people as one inevitably at-risk population. The report noted that it is far more useful to pursue the understanding of young people's sexual behaviour in the context of their immediate peers and surroundings.

While in some cases, the involvement of family and friends in programmes may decrease risk behaviours, it is important to note that family and friends may need specific services and information in order to prepare them to play an active and positive role in these types of programmes given the varying degree to which each YKAP population currently views and is involved with these individuals. For example, particularly for TG and MSM populations, as pointed out in the qualitative data, reactions from family members

"Friends are a bit of an influence...they tell us information they have heard before or tell us what to do or not to do."

### **TG Focus Group**

to their lifestyle and behaviours may be more negative or less understanding than for other populations of YKAP. In addition, in some cases the conservative nature of culture and family may be an initial disadvantage of including family and friends in programmes for YKAP. However, despite some of the initial challenges when involving family and friends, as well as other social support networks, in programmes for YKAP, data from this study illustrates that most feel this type of approach would be beneficial and quantitative data shows positive impacts on healthier behaviours with increased levels of social support.

Social media was frequently mentioned in qualitative data as having both a positive and negative role in YKAP behaviours. The Internet has become the main source of information for youths who are still finding out their sexual orientations, and it is a place where they can freely communicate with each other. A study among Thai adolescents found that they prefer to use the Internet to find information and to obtain sexual knowledge and advice more than written media, especially for homosexuals and bisexuals, who tend to use the Internet for these purposes more frequently than heterosexuals (Sirinan 2009). The Internet offers opportunities for HIV prevention, particularly for YKAP who may be more open to discuss sexual issues without fear of stigma (Jaganath 2012). The Internet also provides a cost-effective method to reach YKAP across a wide geographic range, including those who are not close to HIV services (Bowen 2008). In this regard, in 2011 the WHO published a report entitled "Prevention and Treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people", which recommends that Internet-based HIV prevention interventions enhance the accessibility of HIV prevention messages to MSM living in places where same sex practice is illegal, by providing anonymous discussions without affecting privacy. Furthermore, Youngyud and Sirian (2009), suggest that Thailand's lack of media that presenting positive HIV and riskreduction messages to teenagers could be solved by providing teenagers with access to supportive media, such as websites.

However, social media such as mobile applications and Internet websites may facilitate indiscriminate sex; however, these were also noted as potentially beneficial tools to incorporate more in education programmes given the anonymity they provide for YKAP seeking support and information about HIV. While the cyber social network supports the building of self-reality among some YKAP, it also favours the adoption of higher risk behaviours exposing them to HIV infections (Khine 2012).

Self-esteem was also found to play a significant role in YKAP behaviours across populations included in this study. For example:

- Increased odds of condom use at last sex with higher self-esteem (TG)
- Increased frequency of drugs and alcohol before sex with lower self-esteem (non-Thai migrant, MSM)

- Higher scores on HIV knowledge questions with higher levels of self-esteem (MSM, non-Thai migrant, FSW)
- Increased odds of ever testing for HIV with higher levels of self-esteem (FSW)
- Increased odds of receiving services or information related to HIV with higher levels of self-esteem (FSW, MSM)
- Impacts of self-esteem on age at first sex (MSM, non-Thai migrant, TG)

Given this information, programmes that include components to increase self-esteem may find that this brings about positive outcomes for healthier behaviours and access to information for YKAP. It should be noted, however, that self-esteem and the way in which it is constructed and maintained across different populations of YKAP may vary and programmes should first look at the dynamics of self-esteem for a given YKAP population prior to implementing programmes of this nature.

Regarding the specific behaviour of condom use, this study found that the odds of condom use at last sex was significantly higher with higher condom self-efficacy. This was found across all populations included in the study. Closely linked with self-esteem, the specific issue of condom self-efficacy, coupled with improved information on condom negotiation and decision making about the use of condoms may play a significant role in improving YKAP healthy behaviours.

In addition, an important issue to note from this study is that of mental health. Specific outcomes were found to be statistically significantly impacted by CESD scores and categorization as "major depression" across populations. For example:

- Higher reported number of sexual partners for individuals with higher CESD scores or who were categorized as having "major depression" (MSM)
- Decreased odds of condom use at last sex with higher depression scores (MSM, non-Thai migrant)
- Lower HIV knowledge scores with higher depression scores (MSM, TG, FSW)
- Decreased odds of ever being tested for HIV with higher depression scores (FSW)
- Lower odds of receiving services or HIV information with higher depression scores (MSM, TG, FSW)

Specific mental health interventions for YKAP in Thailand would need a significant level of formative research prior to being implemented, however, these initial findings illustrate the role of mental health and depression in YKAP behaviours and access to information and services. Thus, this is likely to be an area that, if incorporated into larger intervention strategies, could positively impact healthier behaviours among YKAP.

Overall, involvement of YKAP themselves in programme planning, research design, and implementation of services was noted across all qualitative data and is closely tied to the positive outcomes seen from increased social support, which includes peer-to-peer information sharing and networking.

"The advice I would give people who want to work with young people is that we can't just tell them what to do — we need to sit and talk with them first and find out about them and how they think. Then we need to ask them how they feel about what our organization is planning to do. We need to get their advice on the design of programmes and how programmes should be adapted."

#### **NGO Worker**

Given the diverse nature of YKAP populations in Thailand and their specific needs, input from adolescents in these populations is essential for the design and implementation of programmes to increase healthier behaviours and access to services. While overall coordination between service providers has been noted as important to improved programmes, as well as increasing sensitivity among service providers working with YKAP, decisions about programme design appear to be most effective if YKAP are directly involved and play a significant role as partners in the development of these programmes, not just as beneficiaries.

Many respondents participating in focus groups for this study noted ways in which services can best be developed to reach YKAP in Thailand. Among the suggestions are to provide services in locations where YKAP live and work.

"Having the programme where we can reach it is important because we can't really travel anywhere other than where we work. It is really about having the time to go somewhere — and, I guess, needing to know where to go, but if people know where to go then the biggest challenge is getting the time. Sometimes we get a break, but that might not be when the clinic can see people."

## **Migrant Focus Group**

In addition, during qualitative data collection activities it was recommended that the Government coordinate more closely with CBOs to provide services, particularly outreach services, which would then increase access to services for YKAP.

"They [the government] don't have the ability to do outreach. The NGO has better outreach network. They are better than the government, that's obvious with PWIDs and sex workers. NGOs have more flexibility, they know the culture, the language, how to build up the trust. Governmental organizations sit there and ask the client to compile things before they get service."

#### Thai Government Official Interview

"Meeting with young people at risk for HIV should not be formal meetings. The way to start is by making friends and earning trust. If you are a researcher or service provider and you want to collect data or provide services, it can be extremely technical. A better way is to start by creating relationships and earn the trust of young people. If they trust you, they can explain many things that you want to know. If you work together with them as friends, they can be open with you and talk openly."

### **MSM CBO Interview**



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During this study, there was strong approval of HIV testing provided by the Thai Red Cross, or private health clinics, among YKAP groups. The reasons given for this approval were the high level of confidentiality inherent in their testing methods and the positive attitudes of their healthcare staff.

With regards to confidentiality at the Thai Red Cross, clients' information and test results are coded and given in such a way that the client is the only one who can see the results. With regards to healthcare staff training, Thai Red Cross employees have more accepting attitudes towards YKAP. Both aspects about the Thai Red Cross may be due to the fact that they specialize in dealing with blood and related blood infections. Staff may have more training and understanding of how to manage clients who are getting tested for HIV than the hospital staff. Because of this, all groups within YKAP preferred testing at the Thai Red Cross to other facilities.

## **RECOMMENDATIONS**

Specific strategies to improve YKAP access to HIV/AIDS prevention information, protection measures, and testing and treatment options are urgently required in Thailand. Although similarities in risk and protective factors exist across YKAP populations in Thailand, the unique nature of specific YKAP populations in the country calls for programmes designed at the community level and with significant input from and involvement of young people themselves. Addressing the needs of YKAP must take a longterm and multi-strategic approach. While access to treatment remains an important issue for adolescents in Thailand, given that prevention of HIV is 28 times more cost-effective than treatment (UNAIDS 2008), recommendations below focus primarily on prevention strategies. In addition, these recommendations were developed using information from existing evidence-base practices, when applicable, and in light of key findings from this study. Recommendations at the policy and research levels represent recommendations related to YKAP in general. Following these, recommendation on programmes and services are presented for both general YKAP as well as specific sub-populations.

## **R** Policy

- Develop national-level policies for training and support for all government health staff, specifically those who work face-to-face with young people, regarding sensitivities of working with YKAP and appropriate practices to reduce, and ultimately eliminate, stigma and discrimination at health service access points.
- Increase access to confidential HIV testing and counselling for YKAP populations, as well as focusing on increasing confidentiality and age of consent for general medical care and other STI testing, particularly those under the age of 18 years.
- Routine data collection, specifically national-level data, should include younger age groups in order to more accurately and regularly obtain information regarding health behaviours of this key age group in the population.

## Research

- Development of research that include strong monitoring and evaluation of interventions, randomized controlled trials, when possible, and longer follow-up periods in order to create a stronger evidence base for interventions specifically carried out for YKAP in Thailand.
- Where an evidence base exists for youth-specific interventions, apply these findings to programmes in Thailand; however, where an evidence base is minimal or lacking, develop strong research strategies to attempt to develop the evidence base for specific, promising interventions in Thailand.
- Involve adolescents in research programme design, implementation, and analysis as a means of increasing overall acceptability of the research and to ensure sensitivities of various YKAP are taking into consideration throughout the research process. As mentioned by respondents in this study, overly technical questions, particularly regarding sexual behaviours, can alienate adolescents and discourage their participation in both health programmes and research.
- Regarding research and data collection on HIV testing, future studies should aim to capture more detailed information regarding frequency of testing, such as the number of times tested in the last 12 months, instead of focusing on only measuring whether or not at least one test was conducted in the last 12 months.

 Given the impact of levels of perceived social support on key behaviours of YKAP in this study, it is recommended that further qualitative research be conducted with specific subgroups to gather more detailed information on the individuals in the lives of YKAP who contribute to and impact perceived social support.

## **A** General programmes and services

- Advocate, develop, and support community-wide interventions for adolescents and young people living within geographically defined communities that also include a wider range of community members and stakeholders given the influence of peers, family, and other community members on the lives and decisions of young people.
- Develop and implement age-appropriate mass media interventions, specifically those that combine multiple forms of mass media to reach the target audiences.
- Assist in the design of programmes to provide services in accessible locations and at times convenient for young people, specifically evenings and weekends and in locations close to where they live, go to school, and/or work, as indicated by the overwhelming response from YKAP in this study regarding barriers to services and programmes.
- Support the development of peer counselling for young people in higher risk groups to enable more effective discussions of and dissemination of information on key factors and risk behaviours, given that this study identified peers as having a strong influence on the level of risky behaviours in which others their age engage. In this regard, peer education is an effective way for reproductive health promotion, because it is communication between equals and this equality leads to more sympathy and empathy.
- Further develop in-school HIV prevention education programmes throughout the country, keeping in mind that significant proportions of adolescents may remain underserved by schoolbased health services and, therefore, schoolbased health services should be used to complement, not replace, standard health care services.

## **X** MSM-specific programmes and services

- Given high levels of school enrolment and full-time attendance found in this study, it is recommended that school-based programmes designed to address the needs of young MSM be further explored, however, we recommend that content of HIV/AIDS-related information programmes should be reviewed, given that 82-94% of MSM in this study received information, knowledge or services in the past 12 months, but only 34-64% of MSM included in this study had correct HIV knowledge. This finding suggests that information in programmes is not sufficiently tailored to provide essential information specific to this subgroup of the youth population.
- Increase information specifically for MSM regarding where HIV testing is provided, given that between 20-30% of MSM in this study do not know where they can be tested, while also exploring and addressing accessibility and acceptability of testing venues.
- Peer-educator programmes should be developed for young MSM, given that over 75% of MSM included in this study talked with friends about HIV/AIDS.
- HIV-specific services should investigate the inclusion of mental health support services, given the impact of depression on condom use among MSM in this study (lower odds of condom use with higher depression scores) and the impact of depression on HIV knowledge scores (lower HIV knowledge scores with higher depression scores).

## Transgender-specific programmes and services

- Peer-educator programmes should be developed for young TG, given that 62% of TG included in this study talked with friends about HIV/AIDS.
- Content of HIV/AIDS-related information programmes should be reviewed, given that only 32% of TG included in this study had correct HIV knowledge. This finding suggests that information in programmes is not sufficiently tailored to provide essential information specific to this subgroup of the youth population.
- HIV-specific services should investigate the inclusion of mental health support services, given the impact of depression on receiving HIV information among TG in this study (lower odds of receiving HIV information or services with higher depression scores).

 Programmes that also include components to increase social support, self-esteem, and condom self-efficacy should be explored for young TG, given that TG in this study had higher odds of condom use at last sex with increased social support, higher condom self-efficacy, and higher self-esteem.

## Non-Thai migrant-specific programmes and services

- Specifically for adolescent migrants, develop, implement, monitor, and evaluate programmes that provide services in geographic areas convenient for those adolescents who are working, given that an estimated 74% of migrant youth included in this study know where they can be tested for HIV, but just 26% of migrant youth had been tested for HIV in the past 12 months.
- HIV/AIDS education programmes should be expanded for migrant youth, given that nearly half (53%) of migrant youth included in this study did not speak to anyone about HIV/AIDS in the past 12 months.
- Peer-educator programmes should be developed for young migrants, given that 32% of migrants included in this study who had talked with someone about HIV/AIDS spoke with friends.
- Programmes should aim to increase accessibility of condoms for migrant youth, given that a high proportion of migrant youth in this study had never received condoms.
- Programmes for young migrants that include components focusing on increasing social support, self-esteem, and condom self-efficacy should be further explored, given the positive impacts these factors had on increased age at first sex, increased odds of using a condom at last sex,
  - and higher levels of HIV knowledge among migrant youth included in this study.
- HIV-specific services should investigate the inclusion of mental health support services for migrant youth, given the impact of depression on condom use at last sex among migrant youth in this study (lower odds of condom use at last sex with higher depression scores).

## PWID-specific programmes and services

 Given the lack of sufficient RDS survey data specifically regarding injection drug use among YKAP, it is recommended that further studies specifically focused on this particular subgroup population be conducted to gain a more indepth understanding of key behaviours and factors affecting behaviours such as prevention and health seeking.

## $\hat{m{\chi}}$ FSW-specific programmes and services

- Programmes should be designed to take specific circumstances of the various types of FSW (i.e. venue-based, non-venue based, non-Thai migrant) into account during design and implementation.
- Increase information specifically for FSW regarding where HIV testing is provided, given that as few as 31% of FSW in a research location in this study do not know where they can be tested. Furthermore, accessibility and acceptability of testing venues needs further exploration, given that only 12% of FSW in Chiang Mai and 18% of FSW in Bangkok included in this study had been tested for HIV in the past 12 months.
- Peer-educator programmes should be developed for young FSW, given that between 44-66% of FSW included in this study talked with friends about HIV/AIDS.
- Content of HIV/AIDS-related information programmes should be reviewed, given that only 26% of FSW in Ubon and 46% of FSW in Chiang Mai included in this study had correct HIV knowledge, compared with 92% correct HIV knowledge among FSW in Bangkok.
- Given low school attendance rates among some FSW included in this study, in-school HIV/AIDS programmes are not recommended for this specific population and, instead, outreach services may best reach young FSW throughout the country.
- HIV-specific services should investigate the inclusion of mental health support services for young FSW, given the impact of depression HIV knowledge for all three FSW networks included in this study (lower HIV knowledge with higher depression scores).

 Programmes for young FSW that include components focusing on increasing social support, self-esteem, and condom self-efficacy should be further explored, given the positive impacts these factors had on HIV knowledge and receiving HIV-related services or information, among young FSW included in this study.

Our findings suggest that promoting the improved quality of discussion and information about HIV/ AIDS with all young people is needed, irrespective of the specific population to which they might belong within the overall group of YKAP. Using new and creative strategies may be beneficial to the wider community. Greater integration of YKAP, and adolescents in general, in programmes

and outreach efforts is greatly needed. Strategies that involve adolescents can serve to better understand and promote the health-seeking practice of young people for safer lifestyles and improved access and uptake of prevention measures. Finally, programmes may see improved impacts on outcomes by looking at the role of self-esteem, social support, and mental health as factors related to YKAP behaviours. Including components focusing on these areas in general HIV/AIDS programmes is likely to increase effectiveness and result in improved outcomes for healthier behaviours, compared to more traditional programmes that focus more narrowly on providing information and services such as testing and treatment.



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