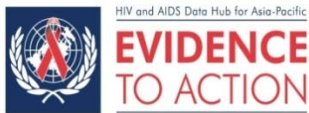


SEX WORK & HIV THAILAND



Beginning in the late 1980s, the HIV epidemic increased rapidly in Thailand, particularly in the upper

Northern region [1, 2]. In 1990-91, soon after it was observed that the HIV epidemic was spreading among injecting drug users and sex workers, the government acted decisively, launching a nationwide campaign to reduce HIV transmission. Thailand became the first country in Asia to launch the 100% Condom Use Programme (CUP) – a collaborative effort among local authorities, public health officers, sex establishment owners, and sex workers – a target was set to ensure that clients could not purchase sexual services without condom use.

As a result, HIV prevalence declined. The adult HIV prevalence was estimated to be 1.4% in 2007 and 610,000 adults and children were estimated to be living with HIV [7]. In the early 1990s, about 80% of new infections were among female sex workers (FSWs) and their clients [4]. The success of the 100% CUP resulted in the reduction in the proportion of annual new infections in sex work settings from 80% to 15%. As of 2008, it was estimated that 4% and 10% of new infections were among FSWs and their clients, respectively [25].

Although infections can now be found in all 76 provinces of Thailand, early prevalence studies indicated that, among sex workers, the rates of HIV infection were highest in the seven upper Northern provinces of the country [1, 2].

SEX WORK

In the late 1980s, it was estimated that there were an average of 700 FSWs per province (outside of Bangkok and Chonburi provinces, which includes the resort of Pattaya) [1].

In January 1995, it was estimated that there were about 81,000 FSWs in Thailand, a third of whom resided in Bangkok [1]. However, between 1989 and 1994, the number of FSWs declined by 23%, corresponding to a shift from direct to indirect sex work [1]. The 2009 annual survey of commercial sex establishments (CSEs) and SWs, conducted by the Bureau of AIDS, TB and STIs, identified 16,300 CSEs and 73,900 SWs (6,750 males and 67,200 females) [7]. The study notes that the actual number of SWs is probably two-to-three times higher than those enumerated (thus, approximately 150,000 to 250,000 persons) given the often clandestine nature of sex work. The five most common CSEs were described as karaoke salons, beer bars, traditional massage parlours, saunas, and coyote bars [7].

Table 1. Estimates of the size of the sex worker populations.

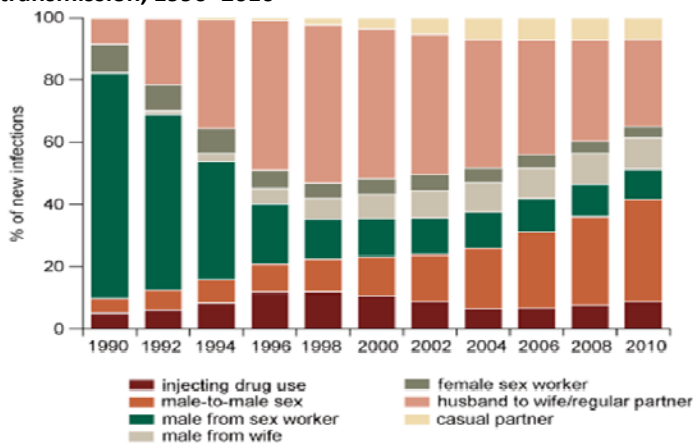
Group	Year	Size of sex worker population	Ref.
Sex workers	2009	6,750 males; 67,200 females	[7]
	1995	81,000	[1]
Male Sex Workers	2007	5,900	[8]

The UNGASS 2010 report also describes commercial sex venues as having expanded in recent years to include street-walkers, SWs soliciting in public areas, through networks of phone contacts, the Internet, etc. [7].

Clients of sex workers

Near the beginning of the HIV epidemic in Thailand, HIV began to spread rapidly among sex workers and their male clients. And, due to the fact that men represented a large and mobile population, HIV spread widely throughout the country, both in urban and rural areas [7]. As a result of this dual epidemic among sex workers and their clients, another vulnerable group emerged – that is, the women whose husbands were infected through commercial sex (as well as those married to men who were infected through sex with other men). Prevention programs among sex workers and their clients – in particular, the 100% Condom Use Program initiated in 1992 – brought about significant changes in Thais’ risk behaviors (for instance, a decreasing trend in the number of men having sex with sex workers in the past year). In turn, this resulted in decreasing prevalence among these groups (Fig. 1).

Figure 1. Estimated new HIV infections by mode of transmission, 1990–2010



Source: Asia Epidemic Model, HIV/AIDS projections; Ministry of Public Health, Thailand, 2008_cited in HIV / AIDS in the South-East Asia Region, WHO, 2009

Clients of sex workers continue to make up a significant population, however. The sexual customs of young men in the upper and lower north (which have different

cultures and languages) have shown that men in the upper north begin patronizing prostitutes at an earlier age, and have more frequent sex with sex workers than those in the lower north [1]. The national sexual behaviour survey in Thailand, conducted in 2006, interviewed a sample of the general population aged 18-59. Young adults aged 18-24 were over-sampled, resulting in 3,024 youth respondents. Twenty-five percent of the sexually active young men reported ever having paid for sex.

In a study of the general population in Nakhonsawan in 2001, the proportion of married or partnered participants who reported having had sex with non-regular partners before their current marriage or current regular partners was 41%. About 26% of males had had sex with commercial and non-regular partners [6]. The prevalence of sex with commercial partners or non-regular partners in the previous year were similar for single participants (18%) and for married or partnered participants (19%) [6].

Another study conducted in 1997 to evaluate the 100% Condom Use programme interviewed over 4,000 young men between the ages of 20 and 29 about their sexual behaviour and condom use. About half of them had visited sex workers in the last year [9].

Sex Work and the Law

Although sex work in Thailand has been technically illegal since 1960, attempts to eradicate it – especially in the early 1980s – were abandoned, and the government has tried to control rather than eliminate it [1].

The *Prevention and Suppression of Prostitution Act, B.E. 2539 (1996)* (the “Prostitution Law”), is the central legal framework prohibiting prostitution [11]. The law defines prostitution as any act done to gratify the sexual desire of another in exchange for money or any other benefit, but only if it is done “in a promiscuous manner”. The Prostitution Law does not define what exactly a “promiscuous manner” constitutes, and the act of prostitution by itself is not outlawed anymore, while solicitation is. The crime of solicitation is vaguely

defined. Soliciting the services of a sex worker is liable under the Prostitution Law only if the solicitation is done “openly and shamelessly or causes a nuisance to the public”, with the penalty being a fine of up to 1,000 baht (~US\$ 30) [11].

Furthermore, the *Entertainment Places Act of 1966 (fourth revision 2003)* is one of the laws regulating massage parlours, go-go bars, karaoke bars, bathhouses and similar establishments [11]. Under this law, such establishments are required to be licensed. The law does not directly permit sex work, but allows for "service providers" and "bath service providers", which are differentiated from regular, non-sexual service staff [11].

Notwithstanding the existence of legislation, there is often a disconnect between the law and conflicting policies, as well as a lack of coordination among government bodies and weak law enforcement. Despite whatever type of legal environment that exists, police and local authorities have been known to take punitive or more restrictive actions against sex workers based on outdated or unrelated laws and policies. Each of these issues acts as a barrier to HIV intervention programme implementation by making sex workers hidden for fear of being apprehended and by hampering their health-seeking behaviour.

HIV and Sex Work

In 1989, the first national epidemiological surveillance found that 44% of sex workers in Chiang Mai, in the north, were infected with HIV and 1-5% of brothel-based sex workers were infected in all-but-one of the 14 provinces sampled [3]. By June 1990, with the surveillance system expanded to include all 73 provinces, national HIV prevalence among brothel-based sex workers had risen from to 9.3% (from 3.1% in June 1989) and was climbing fast. By June 1991, HIV prevalence had risen to 15.2% (Fig. 2) [9].

Table 2. Vulnerability of sex workers

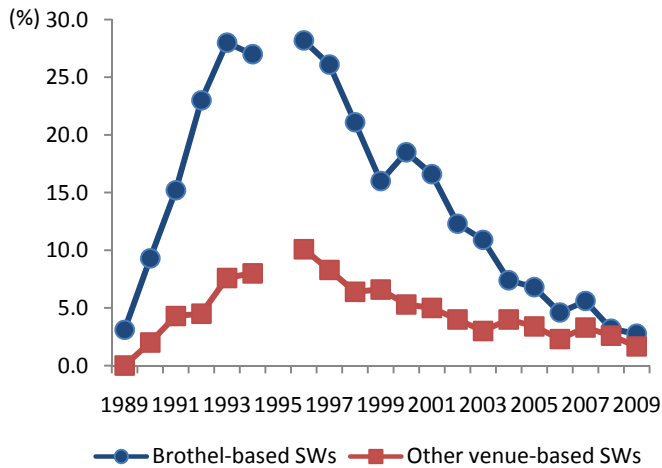
Indicators	Thailand	Year
HIV prevalence among sex workers	SW 3.2% FSW 2.8% MSW 14.2%	2009
Percentage of sex workers that used a condom with their last client	FSW 92.2	2009
Percentage of sex workers reached by HIV prevention programmes	n/a	-
Percentage of sex workers who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	SW 38.3 FSW 41.3 MSW 29.3	2009
Percentage received an HIV test and knew of the results	SW 33.8 FSW 36.0 MSW 35.2	2009

Source: UNGASS Progress Report, 2010

A prospective study conducted in northern Thailand between 1991 and 1994 also showed that the HIV seroconversion rate was much higher (20.3 per 100 person-years) among a cohort of 126 brothel-based sex workers i.e. direct FSWs, compared to 0.7 per 100 person-years among 159 sex workers who were based at other venues such as massage parlours or bars (indirect SWs) [12].

The rising prevalence among sex workers, which peaked in 1994 - 1996 (28% among brothel-based ‘direct’ SWs and remaining below 10% among indirect SWs in massage parlours, restaurants, and hotels), launched subsequent waves of the epidemic in the male clients of sex workers, their wives and partners, and their children [1, 5, 13].

Figure 2. Prevalence of HIV among female sex workers, 1989 – 2009



Source: National AIDS Prevention and Alleviation Committee, UNGASS Country Progress Report 2010: Thailand reporting period January 2008 – December 2009. 2010, National AIDS Control Programme, Ministry of Health.

By 2004, the prevalence of HIV among both direct and indirect sex workers was declining and has recently reached a plateau [7]. As of 2009, HIV prevalence was 2.8% and 1.7% for direct sex workers and indirect sex workers, respectively [7]. Among male sex workers, there was also a decline from 20.7% in 2007 to 14.2% in 2009 [7].

Regional disparities in HIV prevalence are marked, with FSWs in the Central and Southern regions now more likely to be infected with HIV than those in other parts of the country [14]. The decline in prevalence appears to have occurred in all regions, including among direct SWs in Bangkok with the latest prevalence at 5.3%, followed by the Northern provinces (3.7%), southern (2.8%), and north-eastern (1.6%). However, among indirect SWs, no such substantial decline has occurred. The latest prevalence among indirect SWs in the south was 2.2%, followed by the central region, including Bangkok, (2.0%), the northeast (1.8%), and the north (1.0%) [7]. Moreover, it is important to note that – although HIV prevalence among indirect SWs declined slightly after 2004 – incidence during that period has risen (from 0.2% per year in 2004 to 0.7% per year in both 2007 and 2008) [7].

Despite the prevalence observed through the HIV sentinel surveillance, however, an integrated bio-behavioural survey in 2007 using respondent-driven sampling in Bangkok (n=707) and Chiang Rai (n=366) found higher rates of HIV prevalence among SWs. Indeed, HIV prevalence in Bangkok was found to be 20% among indirect SWs and 2.5% among direct SWs. In Chiang Rai, HIV prevalence was 10% among indirect SWs and 2.6% among direct SWs [10]. These results are likely higher than those found in the HSS given that respondent-driven sampling typically involves recruitment from populations already accessing HIV/STI services (and thus often infected or particularly vulnerable upon inclusion).

Condom use

In 1989, public health authorities in the province of Ratchaburi launched the innovative 100% Condom Use Programme as a response to the high HIV prevalence observed among brothel-based sex workers in the northern provinces [9]. The programme was later expanded nationally in 1991. It has been seen as an important contributor to the reduction of HIV transmission in the country [16]. With this programme, condom use at last sex increased from 30% in 1989, up 10% each year through 1992, and reached 82% in 1998 [17]. As a result of this policy that also included STIs control and a mass media campaign to change men's sexual behaviour, HIV prevalence among brothel-based female sex workers has fallen ten-fold from 28% in 1994 to 2.8% in 2009 [10, 15].

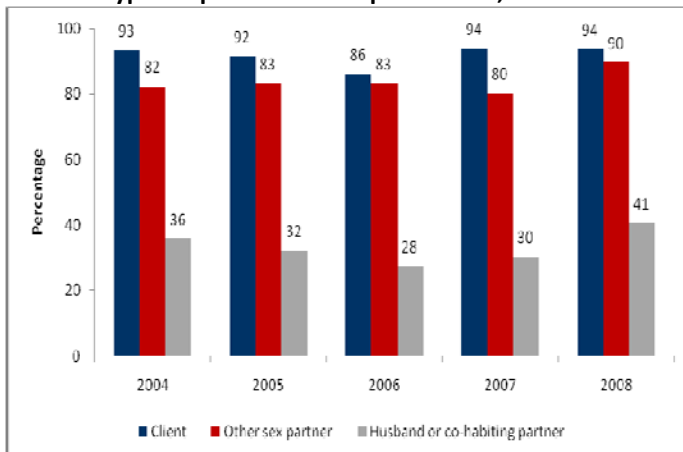
An evaluation of the 100% Condom Use Programme conducted in 2000 surveyed 2,000 sex workers and found high levels of reported condom use: 97% and 93% always used condoms with one-off clients and regular clients, respectively [9].

BSS results among direct SWs from 2004 to 2008 found that reported consistent condom use in the last month was high with clients, but notably lower with other sex partners and lowest with husbands or co-habiting partners (Fig. 3).

A study conducted in 2009 among 827 young MSM, male sex workers, and transgender (15-24 years) in Phuket, Chiang Mai, and Bangkok found that one third of male sex workers and half of transgenders did not use condoms consistently in the last 3 months. Furthermore, male sex workers were more likely to use drugs than MSM and transgender [23].

Overall, most recent data indicates that the percentage of FSWs (regardless of being direct or indirect) reporting the use of a condom with their most recent client fell from 96% in 2006-07 to 92% in 2009¹.

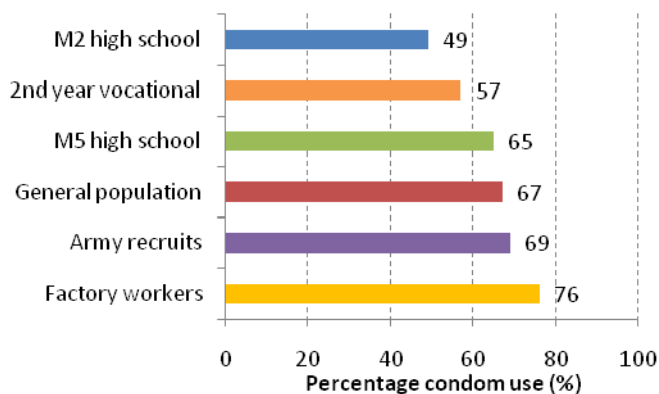
Figure 3. Condom use by direct sex workers every time with different types of partners in the past month, 2004-2008



Source: Surveillance of HIV risk behavior. BOE, DDC, MOPH, as cited by UNGASS 2010

A BSS 2008 survey of male clients of SWs found that 49% to 76% of male students, military recruits, and male factory workers reported using a condom every time they had sex with a sex worker (Fig. 4).

Figure 4. Percentage of male sub-groups “always” using a condom with sex workers, 2008



Source: HIV BSS conducted by the BOE, DDC, MOPH, as cited by UNGASS 2010

¹ BSS among FSWs, using data from 54 provinces, as cited by note 7.

Table 3. Results of selected surveys on sex worker populations (1998-2007).

Population, year & sample	Sex worker profile	Risk factors	HIV/STI prevalence	Ref.
Bangkok and Chiang Rai (2007) Venue-based and non venue-based. (Bangkok, n=707, Chiang Rai, n=366)	-Indirect sex workers : venue and non venue based	-	Bangkok venue-based: HIV 2.5% Bangkok non venue-based: HIV 20% Gonorrhea: 1% NSU: 9% Chiang Rai venue-based: HIV 2.6% Chiang Rai non venue-based: HIV 10% Gonorrhea: 2% NSU: 9%	[10]
Bangkok, Chiang Mai and Phuket (2005) (n=312) (male sex workers)	Common sex work venues: “go-go” bars (id. Bars where workers can be solicited); massage parlours; streets and parks Age: 29% 15-19 years old; 71% 20-24 years old Education: 80% high school or less; 20% technical school or higher	14% ever experienced sexual coercion 35% reported inconsistent condom use in the past 3 months	67% ever had STIs 53% had ever tested for HIV (prior to the study) HIV prevalence: 15%	[23]
Bangkok, Mae Hong Son, Chang Mai, other small villages Direct SWs (n=150)	Mean age: 25 Mean years worked: 4 Mean customers per day: 5	Mean condom utilization per day: 3	-	[24]
Bangkok (1998) FSWs attending a government clinic (n=500)	Mean age:24.7 years Duration as FSW: 4-10years	Condom use with clients: 75% consistent during first year of sex work; 22% seldom; 2.5% never. Average number of clients per day: 0-1: 64.3%, 2-4: 29.2%, 5-10: 6.5%	HIV seroprevalence 5.5% among 91 women began sex work before 1989, 8.0% among 87 women began 1990 to 1993, and 12.5% among 322 women begun since 1994.	[18]
Khon Kaen northeast region of Thailand (1996) FSWs in illegal brothels (n=489)	Mean age: 22 yr; 77.7% had less than 6 yr. of schooling; 59.8% born in northeast region. Duration as FSW: less than 3 yr.	Clients (per day): 4.4 Oral sex: 5.4%; anal sex: 1.0% Condom use with clients: 21% consistent in last 3 months	12.5% HIV seropositive	[19]

VULNERABILITIES

Other sexually-transmitted infections

STI surveillance among SWs during 1999-2008 found that STI prevalence among SWs is on the rise, and that, in 2008, the prevalence of STIs among SWs was 1.8% among women and 15.2% among men [10]. The 2010 UNGASS report stated that between 0 and 2.2% of FSWs had gonorrhoea, and 5% to 16% had Chlamydia. In the 2006 and 2007 IBBS, the prevalence of non-specific urethritis (NSU) was 10% and 11% respectively. The prevalence of gonorrhoea was low but stable at 1.6% and 1.2% in 2006 and 2007, respectively [10].

Knowledge and awareness

Behavioural surveillance surveys show low levels of comprehensive knowledge of HIV – that is, the ability to both correctly identify ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission – among sex workers during 2004 to 2007. Indeed, in 2007, 28% of FSWs and 25% of MSWs had comprehensive knowledge of HIV [10]. In 2009 comprehensive knowledge of HIV had increased markedly to 41% among FSWs and, to a lesser extent, to 29% among MSWs [10].

Stigma and discrimination

Sex workers are generally stigmatised, marginalised and criminalised by the societies in which they live, and in various ways, these factors can contribute to their vulnerability to HIV.

The 2010 UNGASS Report highlights the fact that some healthcare providers do not fully understand the principles of HIV-related rights, making services not user-friendly [10].

There is a severe lack of legislation and policy protecting sex workers from the unscrupulous actions of clients that can put them at risk. The lack of protection in such cases leaves sex workers open to abuse, violence and

rape, and in such an environment it is easier for HIV transmission to occur.

Physical and sexual violence against FSWs in Thailand appears to be common, with those experiencing such violence demonstrating diminished capacity for STI/HIV harm reduction (including condom use negotiation) and greater prevalence of STI symptoms. A 2007 study of 815 FSWs highlighted the relationship between violence as it relates to sexual risk and HIV among this group [22]. The study found that 15% of FSWs had experienced violence in the week before the survey. Those FSWs exposed to violence, compared to those who were not, experienced more frequent condom refusal by clients (86% vs. 69%) and sexual violence was statistically related to STI symptoms.

NATIONAL RESPONSE

Rather than using legal approaches to restrict sex work, which could not curtail demand and would only drive the industry underground and make prevention efforts more difficult, Thailand chose the more pragmatic and effective approach of working cooperatively with all those who influence the sex industry in order to prevent HIV and STIs [9].

With broad participation from NGOs and civil society, the *National Plan for Strategic and Integrated HIV and AIDS* has been implemented. Targets set by the end of this National AIDS Plan in 2011 are: 1) reducing new HIV infections by at least half; 2) universal access to ART for those in need and 3) providing at least 80% of people living with HIV/AIDS, their families and those affected by HIV access with social support. Its objective is to integrate HIV prevention and alleviation strategies at all levels and to promote multi sector collaboration and to provide integrated services for identified population groups. The National Plan identifies four strategies: 1) improved management to integrate HIV/AIDS responses in all sectors, 2) integration of prevention, care, treatment and impact mitigation for each population group, 3) HIV/AIDS related rights protection and 4) monitoring and evaluation coupled with research on HIV prevention and alleviation and emphasizes the

importance of supportive public policy and the empowerment of people to protect themselves.

Surveillance

The first AIDS case report was in 1984. Following that, the HIV sentinel surveillance system was implemented in 1989 to monitor the HIV epidemic [7]. It was expanded to all provinces in June 1990, and included male and female sex workers in venues as sentinel populations. A limitation of the HSS is that it does not capture HIV surveillance among non-venue based sex workers [7].

Behavioural surveillance was launched in 1995 in 19 provinces. The extensive epidemiological surveillance system was critical in demonstrating the rapid and far-reaching spread of HIV through the population, even while there were very few AIDS cases. Equally important is the fact that the sentinel surveillance system had national coverage [5].

There is still, however, inadequate coverage of SWs who work on the street, in parks, or other public spaces. There is very limited data on this sub-group. There is also limited data and outreach to SWs who are foreign migrants, since managers of entertainment establishments and other venues do not want it known that they have illegal migrants working for them [10].

Condom use intervention

The 100% Condom Programme was designed and implemented with a good understanding of both the context and importance of sex work in Thai sexual culture [1, 9, 20]. The 100% CUP addressed the observation that sex work establishments requiring condom use would often lose clients and money to those which did not. Because many clients did not want to use condoms, there were economic disincentives for establishment owners who promoted safer behaviour at their establishments: men could simply go to another establishment or to a sex worker who did not require condoms. Regional Communicable Disease Control officials in Ratchaburi in 1989 realized that one solution to this fundamentally economic problem was to require

that all establishments and sex workers in the province use condoms in every sex act. This would assure owners and managers that they would not lose business by enforcing the policies requiring condom use, since clients could not go anywhere else to obtain unprotected sex [9].

Condom use has also been promoted through mass media, peer education, and outreach programmes aimed at specific groups throughout the country. The Ministry of Public Health began providing approximately 60 million condoms a year free of charge, primarily distributed to sex work establishments [9].

The results of the 100% CUP were dramatic. Fewer men went to brothels, condom use in brothels rose to more than 90%, the number of consultations at STI clinics was reduced by 90% and infection rates among army conscripts dropped by half in only a few years [5, 9].

The Evaluation of the 100% CUP conducted in 2000 suggested that efforts have been most effective in the most tightly structured and controlled establishments, such as massage parlours and brothels [9]. The programme in general is widely cited as one of the few examples of an effective national AIDS prevention programme anywhere in the world [5]. Nonetheless, targeting condom use among indirect SWs has been challenging – one study found that 44% of owners or managers denied sex workers' general health check-ups and treatments, while 50% did not introduce any measures of condom promotion, and about 30% did not facilitate STI check-ups and treatments for sex workers [21].

Awareness programmes

A visitation programme to spread awareness of HIV, focused primarily on sex workers, has also been launched. Regular visits to sex establishments by health workers play an essential role in raising awareness and building demand for condom use [9]. These visits include training peer educators among sex workers, supplying two free condoms in all hotel rooms, and setting up projects to improve the relationships between sex workers and establishment owners [9].

KEY ISSUES FROM THE DATA

Mobilizing government, non-government, private sector and civil society support for HIV prevention among sex workers and clients

Political commitment at both the national and local level is important to the success of HIV intervention programmes. This is coupled with the ability to engage the owners and managers of sex establishments [9].

The Thai experience shows that a national response that mobilizes government, the private sector, and NGO partners and that targets the highest-risk modes of transmission can be effective in reducing the scope of the epidemic, even when action is delayed. The response was able to draw on strong institutions and traditions: an extensive network of STI services; a successful family planning program that had promoted condoms before the HIV epidemic; the expertise of trained epidemiologists; a health infrastructure with qualified staff; a tradition of evidence-informed policy decisions; strong civil society with a tradition of volunteerism; and a pre-existing network of national development NGOs [5].

Civil society supports SW participation through volunteer activity such as those of EMPOWER and SWING, which emphasize capacity building of SWs so that they can take care of and improve their health and help peers gain knowledge and find referral services.

Enhancing utilization of STI services through health systems strengthening

As a consequence of government reform and public health re-structuring in 2002, STI case management was integrated with the general health services of hospitals. This had the effect of reducing utilization of STI services by SWs and the resulting closure of many STI clinics in many provinces.

Enabling access to essential services within a rights-based and empowerment framework

Indications from both the national- and provincial-level data are that the 100% CUP has contributed remarkably

to increasing condom use between sex workers and their clients and reducing HIV prevalence since the mid-1990s. However, condom use is declining among indirect sex workers, and the programme has had little impact on condom use in non-commercial sexual relationships, leaving potential gaps in the routes for HIV transmission [9]. Any lapse in condom use could have a substantial impact on the epidemic. The conversion of a hostile environment to a more facilitative, enabling environment for sex work has been reported as a contributing factor to improved condom use. This underlines the need for empowerment strategies that go beyond condom promotion. A full rights-based approach is also requested by many civil society organizations of sex workers to combat the stigma that sex workers face that make it hard for them to access health, legal, and social services.

The need for increased coverage of prevention programmes and information initiatives among male sex workers

Most recent data indicates that male sex workers have a higher prevalence of HIV, have less comprehensive knowledge about HIV and receive less testing than female sex workers. Intervention efforts must be tailored to the specific vulnerabilities faced by male sex workers, including their often doubly stigmatized social status as both sex worker and MSM.

AUGUST 2010

Acknowledgments:

This thematic capsule has been prepared by Megan Kendall (HIV and AIDS Data Hub for Asia-Pacific) and Karina Razali and was reviewed internally by Dr. Khin Cho Win Htin and Dr. Ye Yu Shwe. The Data Hub would like to thank its *ad hoc* Peer Review Panel, consisting of representatives from the Asia Pacific Network of Sex Workers, UNAIDS, UNICEF, UNFPA as well as members of the Data Hub's Science and Technical Advisory Group, who reviewed and provided input towards this finalized product.

REFERENCES

- [1] Hanenberg, R.R., W, *Changes in prostitution and the AIDS epidemic in Thailand*. AIDS Care, 1998. 10(1): p. 69-79.
- [2] Nelson, K.E., et al., *HIV Infection in Young Men in Northern Thailand, 1991-1998: Increasing Role of Injection Drug Use*. JAIDS Journal of Acquired Immune Deficiency Syndromes, 2002. 29(1): p. 62-68.
- [3] www.avert.org. *HIV & AIDS in Thailand*. undated 25 May 2010]; Available from: <http://www.avert.org/thailand-aids-hiv.htm>.
- [4] Brown, T and Thailand A2 Team. *Preliminary results of HIV/AIDS projection 2005-2025*. Presentation at the Integrated Analysis and Advocacy - HIV/AIDS Projection Meeting, Ministry of Public Health, December 9, 2005.
- [5] World Bank, *Thailand's Response to AIDS: Building on Success, Confronting the Future*. 2000.
- [6] Lertpiriyasuwat, C., T. Pliapat, and R.A. Jenkins, *A survey of sexual risk behavior for HIV infection in Nakhonsawan, Thailand, 2001*. AIDS, 2003. 17(13): p. 1969-1976.
- [7] NACP, *UNGASS Country Progress Report 2010: Thailand reporting period January 2008 – December 2009*. 2010, National AIDS Control Programme, Ministry of Health.
- [8] The Global Fund, *Thailand Global Fund Round 8 Proposal : Comprehensive HIV Prevention Among MARPs by Promoting Integrated Outreach and Networking (CHAMPION)*. 2008.
- [9] UNAIDS and Ministry of Public Health, *Evaluation of the 100% Condom Programme in Thailand*, in *UNAIDS Case Study*. 2000, UNAIDS in collaboration with AIDS Division, Ministry of Public Health, Thailand.
- [10] National AIDS Prevention and Alleviation Committee, *UNGASS Country Progress Report 2010: Thailand reporting period January 2008 – December 2009*. 2010, National AIDS Control Programme, Ministry of Health.
- [11] Fox, J. *Sex Laws in Thailand Part 2: Laws Regulating Commercial Sex and Entertainment Places*. 2009 30 November 26 May 2010]; Available from: <http://www.thailawforum.com/sex-crimes-in-thailand-part2.html>.
- [12] Kilmarx, P.H., et al., *HIV-1 seroconversion in a prospective study of female sex workers in northern Thailand: continued high incidence among brothel-based women*. AIDS, 1998. 12: p. 1889–1898.
- [13] FHI (1996) *Prevention as Policy: How Thailand Reduced STD and HIV Transmission*. AIDScriptions 3.
- [14] WHO, Universal Access Questionnaire, National Report (Thailand), 2009
- [15] UNAIDS, *AIDS Epidemic Update 2009*. 2009.
- [16] WHO, *The Condom Situation Assessment in 11 Asian and Western Pacific Countries*. 2001, WHO Regional Office for the Western Pacific.
- [17] FHI and Ministry of Public Health Thailand, *The Asian Epidemic Model (AEM) Projections for HIV/AIDS in Thailand: 2005-2025*. 2008, Family Health International and Bureau of AIDS, TB and STIs, Department of Disease Control, Ministry of Public Health Thailand.
- [18] Kilmarx, P.H., et al., *Seroprevalence of HIV Among Female Sex Workers in Bangkok: Evidence of Ongoing Infection Risk After the "100% Condom Program" Was Implemented*. JAIDS Journal of Acquired Immune Deficiency Syndromes, 1999. 21(4): p. 313.
- [19] Ungchusak, K., et al., *Determinants of HIV Infection among Female Commercial Sex Workers in Northeastern Thailand: Results from a Longitudinal Study*. J Acquir Immune Defic Syndr, 1996. 12: p. 500-507.
- [20] Xu, F., et al., *HIV-1 Seroprevalence, Risk Factors, and Preventive Behaviors Among Women in Northern Thailand*. JAIDS Journal of Acquired Immune Deficiency Syndromes, 2000. 25(4): p. 353-359.
- [21] Sirinak C, et al, *Barrier to success of the 100% Condom program in Greater Bangkok*. Paper presented at 9th National AIDS Conference, Thailand, July 7-9, 2003.
- [22] Decker MR, McCauley HL et al, *Sex trafficking, sexual risk, sexually transmitted infection and reproductive health among female sex workers in Thailand*. J Epidemiol Community Health, June 1 2010.
- [23] Chemnasiri T, Netwong T et al, *Inconsistent condom use among young men who have sex with men, male sex workers, and transgenders in Thailand*. AIDS Education and Prevention, 2009, 22(2):100-109
- [24] Buckingham RW, Moraros J et al, *Factors associated with condom use among brothel-based female sex workers in Thailand*. AIDS Care, 2005, Jul; 17(5):640-7.
- [25] Bureau of AIDS, TB and STI, DDC, MOPH_cited in WHO_HIV / AIDS in the South-East Asia Region, 2009