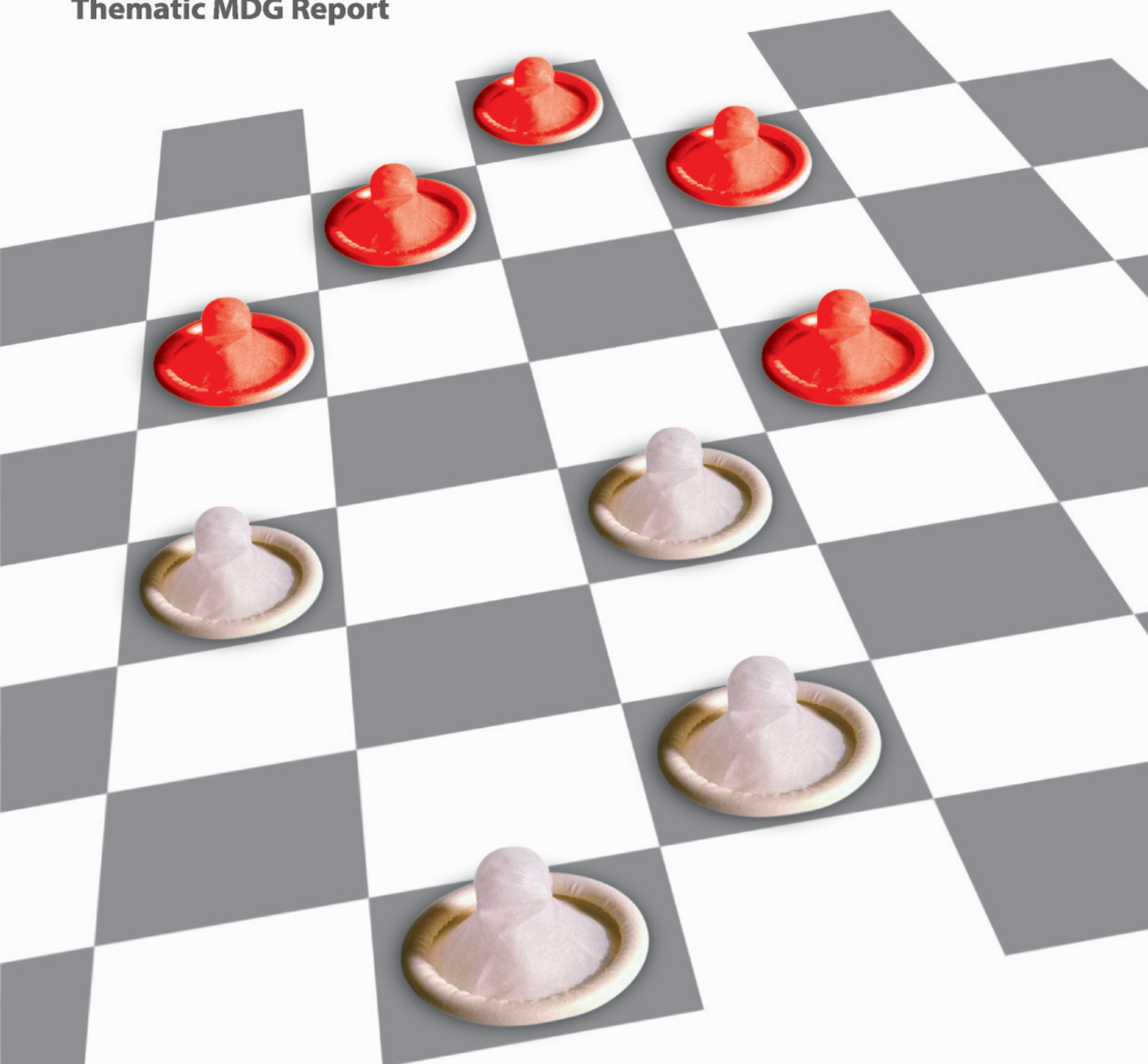


# Thailand's Response to HIV/AIDS: Progress and Challenges



Thematic MDG Report



United Nations Development Programme



# **Thailand's Response to HIV/AIDS: Progress and Challenges**

Copyright © 2004

**United Nations Development Programme**

Rajdamnern Nok Avenue

Bangkok 10200 Thailand

Tel: (66-2) 288 2130

Fax: (66-2) 280 0556

E-mail: [registry.th@undp.org](mailto:registry.th@undp.org)

Web site: [www.undp.or.th](http://www.undp.or.th)

ISBN: 974-92269-7-6

---

# Preface

Thailand's response to HIV/AIDS is a story of impressive achievements. Since 1991, yearly new infections have fallen dramatically and millions of lives have been spared. Thailand is one of the very first countries to have achieved the sixth Millennium Development goal, to begin to reverse the spread of HIV/AIDS by 2015, well in advance of the target date.

This success of Thailand must first and foremost be attributed to courageous and visionary top-level leadership displayed at a relatively early stage of the epidemic. This strong commitment created the political and institutional environment necessary for a broad-based response. Public health agencies, government ministries, the military, non-governmental organizations, communities and the media all joined together in the campaign to confront the growing epidemic. Most striking of all was the pragmatism that guided the Thailand's response. This allowed for an open dialogue about safe sex and condom promotion and a no-nonsense approach to preventing HIV transmission among sex workers and their clients.

Yet it is too early to claim victory. The epidemic is evolving and there are now clear warning signs of a new wave of infections. The virus is spreading unchecked among certain vulnerable groups. Young people in general are becoming increasingly vulnerable to infection. Also, as the epidemic matures, hundreds of thousands of young adults who are living with HIV/AIDS are reaching the stage when they urgently require treatment.

This report provides an in-depth analysis of what went right in Thailand. As such, it is an important contribution to the global policy debate about how best to respond to the HIV/AIDS epidemic. We hope that it will become a valuable resource for other countries as they intensify their efforts to curb the spread of HIV/AIDS

The report also takes a hard look at the many new challenges now facing Thailand as the epidemic evolves. It offers concrete suggestions for the way forward and how to avoid that past success turn into complacency and inaction.

The report forms part of Thailand's UN Country Team's efforts to promote dialogue around the Millennium Development Goals, focusing on the sixth goal of reversing the spread of HIV/AIDS by 2015. The report is also an expression of UNDP's longstanding advocacy for a broad-based and multi-sectoral response to HIV/AIDS that takes into account the socio-economic drivers and implications of the epidemic, respects the human rights of people living with HIV/AIDS, and recognizes that leadership is crucial to achieve real and sustainable results.

The production of the report was guided by an Advisory Panel of eminent experts and leaders, as well as the UN Theme Group on HIV/AIDS in Thailand, benefiting greatly from specific input and contributions from its members. I would like to express my sincere gratitude to all that have contributed to this report.



**J.K. Robert England**  
UN Resident Coordinator  
UNDP Resident Representative  
Thailand



---

# Acknowledgements

## Advisory Panel of Eminent Experts

The production of the Report was guided by an Advisory Panel of eminent officials and experts: Mechai Viravaidya (Senator, Co-Chair of Community Programme Committee, XV International AIDS Conference), Jon Ungpakorn (Senator), Pradap Pibulsonggram (Department of Technical & Economic Cooperation, Ministry of Foreign Affairs), Dr. Anupong Chaitwarakorn (Ministry of Public Health), Dr. Sombat Tanprasertsuk (National AIDS Programme Manager, Ministry of Public Health), Dr. Somyos Kittimankong (Ministry of Public Health), Priyanut Pibulsavut (National Economic and Social Development Board), Kamon Upakaew (Thailand Network for People Living with HIV/AIDS), Dr. Kiet Rakruntham (Thai Red Cross Society, AIDS Research Center), Usa Duongsaa (Chiang Mai University), Anthony Pramualratana (Thailand Business Coalition on AIDS), Paul Cawthorne (Médicins Sans Frontières, Thailand), Dr. Swarup Sarkar (UNAIDS Secretariat, SEAPICT), Sompong Chareonsuk (UNAIDS Secretariat, Thailand), and Håkan Björkman (UNDP). The panel was chaired by J.K. Robert England (UN Resident Coordinator and UNDP Resident Representative),

## UN Theme Group on HIV/AIDS in Thailand

The Report forms part of the UNAIDS Joint Plan of Action for Thailand. The Report was guided by the UN Theme Group on HIV/AIDS in Thailand, and benefited greatly from specific input and contributions from its members: J.K. Robert England (UN Resident Coordinator and Chair of the UN Theme Group on HIV/AIDS in Thailand), Anthony Banbury (WFP), Håkan Björkman (UNDP), He Changchui (FAO), Christine Evans-Klock (ILO), Akira Fujino (UNODC), G. Giridhar (UNFPA), Lucita Lazo (UNIFEM), Dr. Praphan Phanuphak (Thai Red Cross Society's AIDS Research Center), Chakramon Phasukvanich (Secretary-General, National Economic and Social Development Board), Anthony Pramualratana (Thailand Business Coalition on AIDS), Ian Porter (World Bank), N. Kumara Rai (WHO), Sheldon Shaeffer (UNESCO), Nimit Tienudom (Thai NGOs Coalition on AIDS), Dr. Charal Trinwuthipong (Director-General, DCD, Ministry of Public Health), Kamon Upakaew (Thailand Network of People Living with HIV/AIDS), Irena Vojackova-Sollorano (IOM), Inese Zalitis (UNICEF).

## Contributors

Contributions, comments, and advice were received from: Scott Bamber (UNICEF), Wayne Bazant (UNODC), Tim Brown (East-West Center, Thai Red Cross Society), Sompong Chareonsuk (UNAIDS), David Feingold (UNESCO), Caroline Haddad, Julie Hamblin, Neil McFarlane (UNDP), Dr. Swarup Sarkar (UNAIDS), Alice Schmidt, Werisit Sittitrai (UNAIDS), Susan Squarey, Karen Stanecki (UNAIDS), Pornchai Suchitta (UNFPA), Laksami Suebsaeng (WHO), Gunnar Walzholz (ILO), and Jan W de Lind van Wingen (UNESCO).

## **Special thanks**

Special thanks to His Excellency Anand Panyarachun, Chairman of the UN High-Level Panel on Threats, Challenges and Change, and former Prime Minister of Thailand, and to Mechai Viravaidya, Senator, Co-Chair of Community Programme Committee, XV International AIDS Conference, and Director of Population & Community Development Association, who both took the time to be interviewed for this Report.

## **UNDP Team**

This initiative was led by Håkan Björkman, with support from Tongta Temboonkiat, Neil McFarlane, Daranee Tattakorn, and Punnipa Ruangtorsak.

## **Authors/Researchers**

Dr. Wiput Phoolcharoen (Director, Health Systems Research Institution, Ministry of Public Health), Dr. Vichai Posyachinda (Chulalongkorn University), Churnrutai Kanchanachitra (Institute of Population and Social Research, Mahidol University), Waranya Teokul (National Economic and Social Development Board).

## **Principal writer and editor**

Hein Marais

## **Design and layout**

Keen Publishing (Thailand) Co., Ltd.



---

# Contents

<b>Preface</b>	iii
<b>Acknowledgements</b>	v
<b>Overview</b>	1
<b>1. Stuck in the Starting Blocks (1984-1988)</b>	7
<b>2. Reality Dawns (1988-1990)</b>	9
<b>3. Taking the Bull by the Horns (1990-1997)</b>	13
Political and institutional positioning	
Strategic prudence	
<b>4. Racking Up the Achievements</b>	21
Signs of success	
Changing behaviour	
The contributions of NGOs and people living with HIV/AIDS	
<b>5. Factors of Success</b>	29
<b>6. Mixed Fortunes (1997-2003)</b>	33
Knocked off-balance	
Belts are tightened	
Providing treatment and care	
Preventing mother-to-child HIV transmission	
<b>7. The Goalposts Move: A Changing Epidemic (2004-)</b>	45
The epidemic evolves	
Facing new realities	
Worsening impact	
<b>8. The Way Forward</b>	67
Fire up the response	
A new wave of commitment	
Shifting gears	
<b>End Notes</b>	73
<b>Selected Bibliography</b>	77

## Tables and Figures

### Tables

0.1	HIV/AIDS in Thailand	1
0.2	AIDS in Thailand: Number 1 killer among young adults	5
4.1	Number of AIDS NGOs and budget support, 1992-1997	26
6.1	Budget allocation and spending on HIV/AIDS programmes, 1997-2003	34
6.2	Global Fund to fight AIDS, Tuberculosis and Malaria grants to Thailand	37
6.3	Prices of antiretroviral drugs purchased by the Ministry of Public Health	39
6.4	Programmes to prevent mother-to-child transmission of HIV	42
7.1	Knowledge about HIV transmission	46
7.2	HIV prevalence among people who are drug or alcohol dependent	50
7.3	HIV Prevalence among migrant workers in selected provinces	58
7.4	HIV prevalence of pregnant Thai and foreign migrant women	59
7.5	HIV prevalence from sentinel surveillance of deep-sea fishing boat crews	61
7.6	Estimated income forgone due to HIV/AIDS, 1996-2000	65
8.1	HIV/AIDS prevention budget, 1997-2003	69

### Figures

0.1	Millions of infections averted	2
0.2	Yearly new HIV infections, 1985-2003	2
3.1	HIV/AIDS programme finance by source, 1988-2003	15
3.2	Sources of condoms, 1998 and 2001	19
4.1	HIV prevalence among pregnant women and military conscripts in the upper and lower North, 1991-2003	21
4.2	Percentage of commercial sex workers who used a condom during last sexual intercourse and incidence of sexually transmitted diseases, 1989-2003	22
4.3	HIV prevalence among army conscripts, 1991-2003	23
4.4	Percentage of condom use among military conscripts from northern Thailand who visited sex workers, 1991-1997	23
4.5	Condom use with recent clients as reported by direct and indirect commercial sex workers, 1991-2002	24
4.6	Urban males visiting sex workers, 1990-1997	24
4.7	HIV trends among direct and indirect commercial sex workers, 1989-2002	25
4.8	Number of groups of people living with HIV/AIDS in upper northern provinces, 1993-1999	27
6.1	Economic growth and HIV/AIDS spending, 1992-2003	33
6.2	HIV/AIDS military programme spending and overall defence spending, 1992-2002	35
6.3	Details of HIV/AIDS budgets, 1997 and 2000	36
6.4	Budget allocations for voluntary counselling and testing, 1995-2003	41
6.5	HIV prevalence rates among pregnant women and projected number of HIV-positive births and without antiretroviral drugs, 1989-2010	43
7.1	HIV prevalence among pregnant women attending antenatal clinics, 1990-2002	47
7.2	Percentage of male upper secondary school students who reported being sexually active, 1996-2002	48
7.3	Percentage of sexually active male upper secondary school students reporting condom use, 1996-2002	48
7.4	HIV prevalence among female direct and indirect commercial sex workers, 1990-2003	52
7.5	Number of sex services establishments, 1998-2003	52
7.6	Number of female commercial sex workers in brothels (by region), 1998-2003	53
7.7	Number of female commercial sex workers in non-brothel sex service establishments (by region), 1998-2003	53
7.8	Comparing HIV prevalence between injecting drug users and direct commercial sex workers, 1989-2002	54
7.9	Age distribution of annual AIDS related deaths for females, 2000 and 2005	62
7.10	Comparison between direct and indirect costs associated with chronic illness, AIDS and non-AIDS	64

---

# Overview

Thailand has shown that a well-funded, politically-supported and shrewdly-implemented response can change the course of the HIV/AIDS epidemic. After peaking at 143,000 in 1991, the annual number of new HIV infections has fallen to about 19,000 in 2003 – making Thailand one of a handful of countries to have reversed a serious HIV/AIDS epidemic. The national adult HIV prevalence continues to edge lower, with the latest estimates pegging it at a little over 1.5 percent at the end of 2003. This astounding achievement translates into millions of lives saved (see Figures 0.1 and 0.2).

This report is a powerful account of how Thailand has managed to achieve Millennium Development Goal 6 – to halt and begin to reverse the spread of HIV/AIDS by 2015 – well in advance of schedule, and what now needs to be done to sustain this extraordinary achievement.

**Table 0.1 HIV/AIDS in Thailand**

Cumulative number of HIV/AIDS infections since the beginning of epidemic	>1,000,000
Cumulative number of AIDS deaths since the beginning of the epidemic	460,000
Total number of people living with HIV/AIDS in 2003	604,000
Children under 15 living with HIV/AIDS in 2003	12,000
New HIV/AIDS infections in 2003	19,000
Deaths due to AIDS in 2003	53,000
Estimated adult HIV prevalence	1.5%

Source: Ministry of Public Health 2003 and UNAIDS, 2004.

Thailand's feat raises tantalizing questions. How did it make such inroads against the HIV/AIDS epidemic? What lessons does it hold for other countries in the region and beyond? Is Thailand's current response keeping pace with the changing epidemic? What are the strategic priorities for the future to avoid a resurgence? This publication explores these questions by looking back – and ahead – at Thailand's confrontation with one of the deadliest diseases the world has known.

## Elements of success

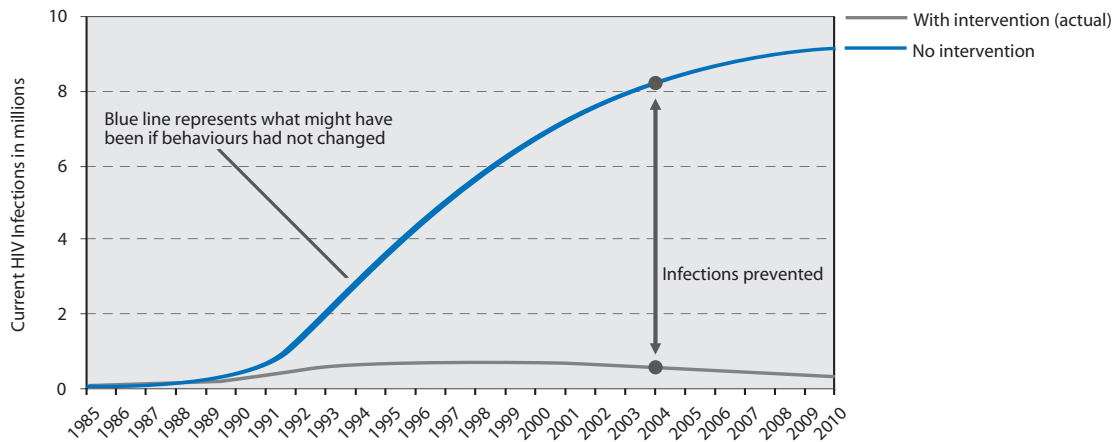
Thailand's success in responding to the HIV/AIDS epidemic would not have been possible without the emergence of firm and focused political commitment, the active roles adopted by top political leaders, the high public spending, the mobilization of sectors and partners well beyond the health ministry, and the active involvement of non-governmental organizations (NGOs) and communities.

Other important, but understated, factors were also at work. One of the most decisive was the pragmatism that guided Thailand's response. Other factors included a comparatively strong healthcare infrastructure, the gathering of reliable epidemiological information and analysis, the successful targeting of the main hub of HIV transmission, and the effective feedback from the field to policy makers.

## Spirited commitment

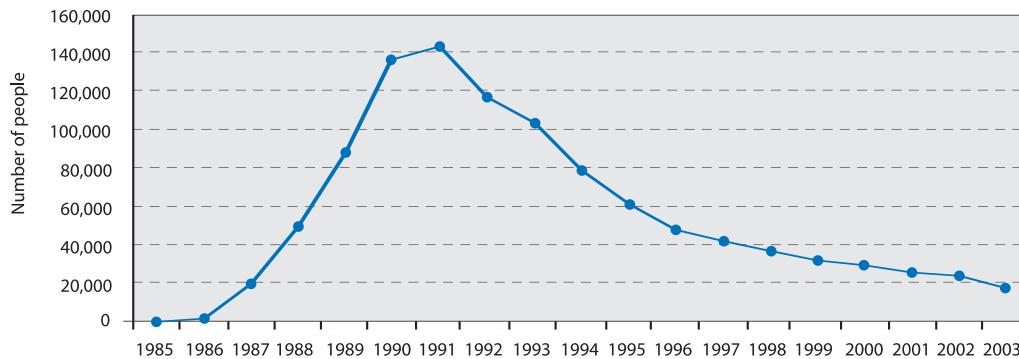
Strong political leadership and commitment provided a powerful impetus for a broad-based response and led to a huge increase in domestic funding for HIV/AIDS programmes. This leadership from the top helped create an institutional and political environment conducive for broad-based cooperation between key government agencies, NGOs, the media, the entertainment industry, the military, and

**Figure 0.1 Millions of infections averted**



Source: Brown T. (2003), *Understanding HIV Prevalence Differentials in Southeast Asia*, East-West Center/Thai Red Cross Society collaboration on HIV Analysis, Modeling & Policy, Bangkok.

**Figure 0.2 Yearly new HIV infections, 1985-2003**



Source: Ministry of Public Health, 2004.

the private sector. In addition, community groups and AIDS activists gained important influence in policy-making and programme design processes.

**Wall-to-wall information**

A massive public education and information campaign was launched in the early 1990s, using the country's strong public communication infrastructure. The vast majority of the population could be reached through electronic media. With increased democracy and tolerance came more critical views, especially in the print media, which helped maintain public debate.

**Exploiting assets**

Thailand's prevention strategy was largely built on the existing health infrastructure. For example, the network of sexually transmitted diseases clinics, which had been extended during the Viet Nam War, was fundamental in implementing the 100% Condom Programme. Utilizing existing infrastructure in this way kept costs down, provided clear lines of management and authority, eased coordination, and boosted chances of sustainability.

### Choosing pragmatism

The sex industry accounted for most HIV infections in the early- to mid-1990s. An effective campaign zeroed in on it. Even though commercial sex was illegal, the authorities chose to be pragmatic. They did not attempt to eliminate commercial sex or alter public morality. Instead, they focused on aggressively promoting safe sex and condom use among sex workers and their clients. The outcome was spectacular.

Thanks in part to visionary and pragmatic leadership, and building on years of family planning campaigns in the 1960s and 1970s, Thai society became relatively tolerant of condom promotion and open discussions about sexual issues. This was crucial to the success of prevention efforts. Unfortunately, injecting drug use and sex between men – now prominent in Thailand's epidemic – have not been confronted with a similar pragmatic approach.

### Facing up to a changing epidemic

It is far too early to claim an emphatic victory against HIV/AIDS in Thailand. The epidemic has matured. The spread of HIV is more varied than a decade ago. HIV continues to spread among diverse population groups, making it more difficult to detect and prevent new infections.

A new phase has arrived in which the epidemic becomes endemic. More than a million people have been infected since the beginning of the epidemic, with about 600,000 living with the virus today. This is making HIV/AIDS a frightening reality in Thailand, with large numbers of people requiring treatment, care and support. HIV/AIDS is now the leading cause of death among young adults and in 2003 accounted for twice the number road traffic deaths.

Current prevention efforts do not measure up to the new realities of a shifting epidemic. Public information and education campaigns are faint. Public concern about HIV/AIDS has ebbed. AIDS spending no longer matches the renewed threat. Levels of HIV infection are unacceptably high among injecting drug users, men who have sex with men, mobile populations and seafarers. The inadequacy of efforts to curb HIV transmission among young people is of particular concern. While still an important factor in the spread of HIV, brothel-based sex work has been overtaken by other patterns of risky behaviour. "Indirect" sex work now accounts for a sizable portion of the sex industry. Infection

levels among pregnant women also remain high in some parts of the country, particularly in the South, an indication that HIV continues to spread in the general population

New strategies and systems, together with a renewed surge of political commitment, are now urgently needed.

### *New strategies...*

There is a clear need to invigorate prevention efforts and to extend them to all sections of the population at risk of HIV infection, especially young people. Strategies are more likely to yield success if they are tailored to local patterns of the epidemic, and are responsive to changes in those patterns. New strategies must also tackle the underlying factors that fuel the spread of HIV.

### *...to reach young people...*

Young people are increasingly at risk of HIV infection. Adequate prevention services reach less than 5 percent of young people. Public awareness campaigns have dimmed. Only 20 to 30 percent of sexually active young people are using condoms consistently. Required now are programmes that match the diversity of risk behaviour among groups of young people. This implies greater investment in practical projects as well as research to understand the new social dynamics.

Many young people are still being drawn into the sex trade, whether as workers or clients. In addition, experimentation with sex and drug use appears to be on the rise among young Thais, including those of school age. These realities, in their own right, pose new challenges. They also put more young people at risk of HIV infection.

Young men who have sex with men are especially at risk of HIV infection. Some studies indicate HIV prevalence as high as 17 percent among this group, but little is being done to provide them with appropriate safe sex education and prevention services.

### *... to reach drug users ...*

HIV prevalence among injecting drug users is as high as 50 percent. About one quarter of all new HIV infections are occurring through unsafe injecting drug use. Projections suggest that, this proportion will rise further in the next few years. Yet, very little of the prevention budget is being deployed on this front. Also worrying are the surprisingly high levels of

sexually-transmitted HIV infections detected among young people who are being treated for addiction to non-injecting drugs and alcohol. This may be because people under the influence of drugs or alcohol are less likely to practice safe sex.

The crackdowns on alleged drug dealers, coupled with limited access to comprehensive harm reduction services, could inadvertently be creating the conditions for a more extensive spread of the virus. Punitive campaigns against people at high risk of HIV infection tend to force them beyond the reach of both prevention and treatment efforts, thereby compromising the HIV/AIDS response. With sporadic incarceration, a reality for many drug users, prisons also offer settings that favour HIV transmission.

The fact that injecting drug use is illegal should not block the path of effective action. A pragmatic approach in this case – like that adopted toward sex work in the 1990s – is much more likely to bring success.

**... to reach mobile populations...**

The epidemic in Thailand is now shifting in other ways too, with high HIV prevalence rates among migrant workers in the construction, agriculture and fishing industries. In some industrial locations the HIV prevalence has reached 6 percent. Seafarers and fishermen are especially at risk of HIV infection since they are difficult to reach with AIDS education. Top priority is needed to roll out aggressive AIDS education. Safe sex and condom promotion programmes must be skilfully targeted at those most at risk.

**... and to reach sex workers...**

HIV infection rates among brothel-based sex workers remain high at around 7 to 12 percent – a reminder that a significant proportion of HIV infections are still occurring in the sex trade. While keeping the pressure on brothel-based HIV transmission, prevention efforts must also extend to the increasing numbers of so-called “indirect” sex workers who operate in settings that are less easily regulated or reached. New strategies are needed to bring effective HIV prevention activities to the men and women who operate in these environments.

**New systems ...**

The centrally coordinated and directed response of the 1990s does not necessarily fit the current context and diversity of the epidemic. Instead, more flexible mechanisms would be better suited. These

could include new management arrangements that are tailored to both national and provincial level responses.

**... to match the context ...**

In order to match the patterns of HIV spread, programmes need to be more responsive to specific, often localized conditions. Decentralizing the planning and budgeting authority to local structures down to sub-district level could help achieve this, with monitoring of the epidemic and the prevention efforts occurring at the provincial and national levels. This implies more technical and financial support for local-level programming, implementation and monitoring. In turn, this could lead to further empowerment at provincial and local levels.

**... to improve coordination ...**

The authority of the current National AIDS Committee is unclear. The Committee needs to adopt a new mandate and to modify its functions. In particular, the Committee needs to refocus on effective coordination of the various responses; to consolidate the AIDS programme and promote results-based budgeting and decentralization; and to, once again, mobilize a wider range of government agencies, local government and NGOs, beyond the public health sector.

**... and to stay in the know**

Reliable information has been key to shaping the response to the AIDS epidemic in Thailand. A changing epidemic requires that the monitoring systems be adapted to lay the foundation for appropriate analysis and guidance. Research is needed on the socio-economic and cultural aspects of the epidemic, including the response of AIDS-affected people and communities.

**Treat, care, support ...**

The epidemic claimed an estimated 58,000 lives in Thailand in 2003. Over 90 percent of AIDS deaths in Thailand are occurring among people aged 20-49 years, the most productive age group. AIDS is now the leading cause of death among young adults in Thailand.

**... with affordable drugs...**

There is an urgent need for adequate care and support at household and community levels, and a great demand for antiretroviral treatment. Commendably, the Government has set the target of providing

50,000 people with treatment by the end of 2004, in addition to the approximately 20,000 people who already have access to the drugs. The programme to prevent mother-to-child transmission is also encouraging, with the number of children being born with HIV now halved.

These ambitious plans are only possible because Thailand has the capacity of producing low-cost generic versions of antiretroviral drugs, at about USD 300 per patient per year. This compares to around USD 8,000 for similar drugs in Europe or North America.

#### *...and adequate capacity*

Cutting the cost of drugs is not enough. The capacity of the health system to administer treatment to tens of thousands of people needs to be strengthened. In addition, antiretroviral provision will have to be carefully managed and monitored to reduce the chances of drug-resistant HIV strains becoming prominent. Enhanced biomedical monitoring and research should become an important component of Thailand's treatment and care strategy.

#### *Cushion the impact...*

HIV/AIDS has become one of the leading causes of death in Thailand, (*see table 0.2*) having a tragic impact on families and communities, especially those that are poor. Alleviating the economic impact for people living with HIV/AIDS was one of the goals

of the National AIDS Plan in the late 1990s but has yet to be acted on. There is now an opportunity to incorporate such alleviation into wider socio-development policies and programmes, addressing the needs of communities and households affected by HIV/AIDS, and the many orphans left behind.

#### *...and address discrimination.*

Of great concern is widespread discrimination and stigma against people living with HIV/AIDS. A quarter of the people living with the virus say they are being insulted and harassed because of their HIV status. About 40 percent report breaches of confidentiality within the health system. This unacceptable situation creates an atmosphere of fear and denial, undermining the effectiveness of HIV/AIDS prevention, education and treatment programmes.

#### **Shifting gears**

A mix of resolve, incisive strategizing and good fortune enabled Thailand to reverse an epidemic that was on the verge of spinning out of control. Thailand is an inspiring case study on how a rampant epidemic can be curbed. At the same time the country has not vanquished HIV/AIDS. Twenty years after the first AIDS cases were detected the epidemic is again a moving target. The knowledge, experience and skills that Thailand has developed give the country a unique advantage as it shifts gears in its response to an ever evolving epidemic.

**Table 0.2 AIDS in Thailand: Number 1 killer among young adults**

	Deaths per year among 15-44 year olds	Total number of deaths per year, all ages
HIV/AIDS	41,443	53,375
Traffic accidents	16,381	24,415
Cancer	9,905	66,956
Stroke	2,607	44,078
Heart disease	2,106	20,080

Source: Bureau of AIDS, TB and STIs, Department of Disease Control, Ministry of Public Health, 2003; and Ministry of Public Health, Thai Working Group on Burden of Disease, 2002.





---

# Stuck in the Starting Blocks (1984-1988)

1

The initial response to the arrival of AIDS in Thailand in the mid-1980s was lacklustre and tainted with many of the misconceptions that marred early reactions elsewhere in the world. The disease first struck men who had acquired HIV during unprotected sex with other men abroad. During the early manifestations, many Thais had the notion that AIDS was a scourge afflicting foreigners and people at the margins of society. “Good” and “decent” Thais had nothing to worry about was ran the common belief. At first the epidemic had little public attention and even less political concern. The warnings and pleas from health experts and community activists were largely shrugged off.

Economic prosperity, not AIDS, was at the top of the agenda of the Government and the private sector at that time. Anxiety about an impending epidemic actually clashed with efforts to boost tourism, like the mammoth 1987 “Visit Thailand Year” promotion. A negative image of the country would lead to fewer tourists and a weaker economy, or so went the argument. Therefore it was not surprising to hear government officials playing down the significance of the epidemic with claims that it would not affect society at large.

Not everyone was as unperturbed. Those researchers and health officials who were aware of the danger were finding it difficult to convince the inner circles of Government to take resolute action and head off a serious AIDS epidemic. At the same time, greater tolerance of freedom of association was allowing civil society bodies to become more vocal, and some were also trying to raise the alarm on the public stage. It is important to remember that the early outbreaks of HIV/AIDS occurred during a period of partial democratization between 1980 and 1988, with the Government formed by a shifting coalition of political parties.

On the whole, Thailand’s initial encounter with the AIDS epidemic was marked by stern denial. Part of the difficulty was credibility of evidence available for making a case for stronger action. To some, the projections crafted at this stage seemed fanciful. The early official response was therefore negligible, with the exception of a few public health measures such as ensuring the safety of Thailand’s blood supply (*see Box 1.1*) and mandating that health establishments report all AIDS cases.<sup>1</sup>

During the early period, most political leaders seemed unconvinced by warnings of an impending epidemic. As a result, public education was largely mute on the issue. A narrowly focused public health approach, as propagated globally at that time by the World Health Organization (WHO), was adopted. The emphasis was on ensuring a safe blood supply, practicing universal precautions in health care, reporting AIDS cases through the medical system, and targeting high-risk individuals with unimaginative information.

Because HIV remains asymptomatic for many years (it can take eight to ten years before a person infected with HIV develops AIDS and becomes visibly ill), the focus on reported AIDS cases offered only a hazy indication of the epidemic’s actual advance. For example, between 1984 and 1989, only 43 AIDS cases were reported to the Ministry of Public Health’s AIDS Prevention and Control Centre. The extent of Thailand’s emerging HIV epidemic was not readily apparent, although in public health circles there was awareness that commercial sex workers, men who have sex with men, and injecting drug users were most at risk of HIV infection.

Interpreting the warning signs of a major epidemic was not easy. Indeed, as late as 1987, there was little hard evidence that the virus was rapidly spreading. HIV testing among injecting drug users in Bangkok

### Box 1.1 Safe as a bank?

Thailand was one of the first developing countries in Asia to systematically prevent the transmission of HIV through the blood donor system. After a young factory guard, Cha-on Sae-soom, was infected with HIV during surgery at a Bangkok hospital in 1986, blood screening practices were changed to include screening for HIV. By 1989, all general hospitals had acquired the capacity to perform these tests. This was followed by initiatives to ensure the safety of blood supplies, including the establishment of blood service centres in the provinces.

Cha-on Sae-soom was instrumental to these efforts. He gave media interviews, appeared on TV talk shows and toured workplaces. He helped ensure that, for the first time in Thailand, AIDS had a human face – and it belonged to the “guy next door.” There were others too. A well-known fashion model, who had been incorrectly diagnosed in a laboratory test, publicized her experience. The story made newspaper headlines and triggered enormous public interest in the pros and cons of HIV diagnosis.

Soon all community hospitals were screening and testing blood supplies for HIV. By mid-1990s, all blood specimens were screened for HIV, using both HIV antibody tests and the more sensitive p24 antigen test. In addition, all blood donors were screened for HIV. By the late 1990s most blood banks electronically recorded the necessary data on donors. A self-administered questionnaire to screen out at-risk donors was also widely used.

These moves considerably reduced the odds of HIV entering the country's blood banks and provided a telling example of how a combination of solid evidence and activism can inform policies which, in turn, can be translated into sustainable practice. As a result, the rate of HIV transmission through blood products in Thailand has been reduced to about one in 80,000 transfusions, among the lowest in any developing country.<sup>2</sup>

### Box 1.2 The global context

Thailand's epidemic began at a point when HIV/AIDS epidemics were already well-established in parts of sub-Saharan Africa and North America. As in the rest of South-East Asia, the spread of HIV in Thailand started in the early to mid-1980s. Most early infections were traced to sexual contacts with infected persons residing outside the region. On the one hand, this encouraged complacency, with many people associating the epidemic with “lifestyles” and behaviour they regarded as alien to Asian cultures. On the other hand, it fuelled a strain of militancy as some decision-makers pushed for stern, even punitive measures, to try and stop HIV at country borders.

By 1988-89, the evidence was upending the notion of HIV as a strictly external threat. The virus was spreading around the region and transmission of HIV was increasing among a variety of population groups. In several countries in South-East Asia, epidemiologists were concluding that two sets of factors would probably determine the course of the emerging epidemic: participation in sex work and patterns of injecting drug use. By 1992, it was estimated that more than 675,000 of the 11.8 million people living with HIV/AIDS were in South-East Asia. The majority of them were Thais.

in 1987, for example, found almost zero prevalence. In the early months of 1988, the Chiang Mai Provincial Health Office started screening female commercial sex workers for HIV at its sexually-transmitted disease (STD) clinics. Up to June of that year, not a single case of HIV infection had been detected. The next month, three cases were diagnosed. Soon after, the North became the epicentre of Thailand's epidemic.

Nevertheless, public health officials were starting to see the writing on the wall. In 1987, the Department of Communicable Disease Control in the Ministry of Public Health created a National Advisory Committee on AIDS. The Committee helped set up a short-term AIDS programme for the country a year later, during the term of the new Prime Minister, Chatichai Choonhaven. The AIDS response was still piecemeal, but Thailand had nevertheless become the first country in Asia to set up a national AIDS control programme – a medium-term plan for 1989-1991. Government funding for the plan was low (a mere USD 184,000 or roughly 4.6 million baht in 1988). External donors provided an additional USD 500,000 (or 12.5 million baht) that year.

Still, for most people – many politicians and policy-makers included – the epidemic was intangible, and so was the response. AIDS simply was not a priority.

---

# Reality Dawns (1988-1990)

# 2

Towards the end of the 1980s, efforts were stepped up to track the spread of HIV among injecting drug users. The findings were shocking. Testing among drug users attending treatment clinics in Bangkok was expanded in late 1987 and early 1988 to include systematic HIV screenings.<sup>3</sup> At first, they revealed almost no HIV infections. Virtually overnight, that changed. HIV prevalence among clinic attendees in the city soared past the 30 percent mark in just eight months in 1988.<sup>4</sup> Soon it became clear that HIV was spreading rapidly among injecting drug users around the country. By 1989, HIV prevalence of between 18-52 percent was being recorded among injecting drug users in all regions of Thailand. A new wave of the epidemic was now on the move.

The alarm, though, was heard only by a smallish circle of epidemiologists, public health officials, including officials at WHO and the U.S. Centers for Disease Control and Prevention. Injecting drug users, then as now, were widely regarded and commonly treated as social outcasts. An HIV epidemic among them was not likely to spur much public concern or political action. And it didn't. Prevention programmes to curb the spread of HIV among injecting drug users would remain threadbare in Thailand. On the other hand, the detection of the epidemic among injecting drug users was strengthening the resolve of those who believed a much more comprehensive HIV surveillance effort was needed.

In 1989, the Epidemiology Division of the Ministry of Public Health and the Royal Thai Army launched separate HIV surveillance efforts among specific groups of the population. Halfway through the year, sentinel sero-surveillance systems were set up in 14 provinces. The systems focused on HIV among blood donors, pregnant women attending antenatal clinics, injecting drug users, male patients at sexually-transmitted disease clinics, and both direct (brothel-

based) and indirect (massage parlours and others) female sex workers. The testing would expand to 31 provinces by the end of 1989, and be underway in all 73 provinces by 1990.<sup>5</sup>

The first sentinel surveillance survey of female commercial sex workers in June 1989 revealed HIV prevalence of 1 to 5 percent in Bangkok and 12 provinces, creating concern but not widespread consternation. However, in a second survey six months later, HIV prevalence was ranging as high as 13 percent in some provinces, and a severe epidemic was underway among sex workers in parts of northern Thailand. HIV prevalence of 43 percent was being found among brothel-based sex workers in Chiang Mai.<sup>6</sup>

The findings, some of which reportedly had been leaked to the press, startled the nation.<sup>7</sup> For politicians it became more difficult to maintain a sanguine attitude, as the data showed clear trends that disproved two common beliefs. First, the eruptions of HIV in brothels frequented by Thai men showed that the epidemic was not confined to the margins of society or to the red light zones catering to foreigners. Second, HIV was not localized, but had established footholds across the country, especially in the North. The median HIV prevalence among brothel-based sex workers was 3 percent in all the provinces surveyed. A year later, it had climbed to 9.3 percent and by June 1991, national HIV prevalence among sex workers had passed the 15 percent mark. Public health officials predicted that the epidemic would now surge in successive waves, as more male clients acquired HIV and transmitted it to their wives and partners, with eventual transmission from mothers to newborns.

Then news broke that the epidemic was coursing through the Royal Thai Army (*see Box 2.1*). Late in 1989,

### Box 2.1 AIDS hits the radar screen

Following the first detection of an AIDS case among military personnel in 1987, the Ministry of Defense set up a ministerial committee to develop an HIV/AIDS prevention campaign for the army, navy and air force. The first major step was to screen the new intakes of young conscripts for HIV. From early on, the screening results caused disquiet. Average prevalence of 0.5% was found in the first round in late 1989, but the results in the North were particularly troubling. The epidemic had entered a bastion of the Thai state – the military – and fears grew that the spread of HIV/AIDS posed a potential threat to national security. Besides conducting sero-surveillance among new conscripts, three HIV/AIDS programmes were established – focusing on HIV/AIDS prevention through capacity building, medical treatment and care, and basic and applied research and development. The prevention programme centred on efforts to reduce the risk of infection. AIDS classes were included in military curricula, condoms were distributed and peer group methods were introduced. In addition, the Armed Forces Research Institute of Medical Science (AFRIMS) would play a pivotal role in mobilizing and monitoring the HIV/AIDS response in the military, and in the country at large.

the Army had launched biannual testing of new army conscripts. Each year, some 25,000-30,000 conscripts aged 21 years are selected by lottery to perform two years of compulsory military service. Most of these conscripts are from rural areas.<sup>8</sup> The first round of testing, in November, had found an HIV prevalence rate of 0.5 percent. Because of their age, infections among the army conscripts were likely to have occurred quite recently. For the first time, Thailand was getting a glimpse of HIV incidence (the number or rate of new infections annually) in the general

population, including those living in rural areas. By 1991, 3 percent of new conscripts nationally were being diagnosed with HIV infections. In the North, prevalence was over 6 percent, with most of the infections occurring in the upper northern provinces. Alarm bells were now ringing loud and clear.

Thanks to the publicity given to the early epidemiological surveillance findings, it began to dawn on more and more Thais that the epidemic was gaining a firm hold in their society. But in some quarters, suspicions lingered that health officials were over-reacting. In other, the reactions verged on panic. For example, an amendment to the Immigration Act sought to bar persons found to be HIV-positive from entering Thailand. Doctors were required to report the names and addresses of AIDS patients to health authorities, albeit in coded format. Doing the rounds, too, was a draconian “AIDS Bill” (see Box 2.2).

### Box 2.2 Rights and wrongs

The spread of HIV/AIDS in Thailand spurred new bouts of non-governmental organization (NGO) activism and project work, much of it focusing on prevention, promotion of human rights and lobbying for an expanded national AIDS response. An NGO consortium on AIDS was formed in 1989. NGOs and activists pressed for the abolishment of mandatory reporting of AIDS patients and for guarantees that HIV-positive persons would not be prohibited from entering the country. NGOs also campaigned against the proposed AIDS Bill, which would have required the reporting of all newly discovered HIV cases within 24 hours, and compelled any member of high-risk groups to undergo testing, with or without consent. After several public hearings, that Bill eventually met its demise – thanks in large part to efforts of the Ministry of Public Health, social activists and the media, which succeeded in convincing lawmakers that it would be impractical and counterproductive to try and implement such a law.

There was not yet a cogent, overarching strategy for tackling the epidemic. Early evidence of the epidemic's advance had persuaded the Cabinet to approve a modest three-year Programme for the Prevention and Control of AIDS (1989-1991). The programme was drawn up with assistance from Global Programme on AIDS at the WHO headquarters in Geneva, and was largely funded by donors. The narrowly focused strategy concentrated on measures for programme management, health education, counselling, training, surveillance and monitoring, medical and social care, and laboratory and blood safety control. Although the overall approach remained grounded in public health, some of the building blocks for a potentially more effective response were gradually being put into place. Systems for capturing strategic information about the epidemic and the behavioural

patterns were enhanced. The wealth of information that became available from 1988-1990 provided the data to help pinpoint the main transmission routes of HIV and the behavioural patterns that needed to change. This laid the groundwork for an intensified response.

Research on the sexual behaviour of Thais – especially Thai men – had long been the stuff of anecdotes, assumptions and motley, small-scale studies. A clearer picture finally emerged when a national behavioural survey (the Survey of Partner Relations and Risk of HIV Infection undertaken by the Thai Red Cross and

Chulalongkorn University with support from WHO) indicated that the buying and selling of sex was widespread, especially in the North. Of the men surveyed, 22 percent of those aged 15-49 years and 37 percent of those aged 20-24 years said they had visited a sex worker in the previous year. With commercial sex so common, HIV risk was high. Only 38 percent of men who had bought sex in the previous year said they used a condom every time they had sex with a sex worker. Clearly, consistent condom use was much too low to prevent the epidemic from spinning out of control.



---

# Taking the Bull by the Horns

## (1990-1997)

# 3

Thailand's response started to gain momentum in the early 1990s, particularly under the new government of Anand Panyarachun, appointed Prime Minister in February 1991. This greater commitment was the direct result of the determined efforts of a wide range of people – activists, people living with HIV/AIDS, health providers, scientists and officials – who, over the years, had been gathering the evidence, assembling networks, instigating policy changes and experimenting with new practices.

Inside the new government, one figure in particular would come to be associated with Thailand's struggle against AIDS. Appointed to the new Cabinet as Minister to the Prime Minister's Office, Mechai Viravaidya – well-known family planning activist – was put in charge of Tourism, Public Information and Mass Communication. AIDS, however, was at the top of his agenda. And he used his new position to leverage it to the top of the Anand Government's agenda too.

Vigour and willpower alone, though are no guarantees of success. In the case of Thailand, the heightened response proved effective on two vital fronts. First was the astute political and institutional positioning of the AIDS effort. Second was the strategic and timely targeting of the main factors contributing to the spreading of the HIV/AIDS epidemic.

### Political and institutional positioning

In 1991, AIDS policy was drawn into the orbit of the Office of the Prime Minister, with the National AIDS Prevention and Control Committee chaired by the Prime Minister himself. This move would later be hailed as a vital expression of top-level political commitment that paved the way for mobilizing a wide range of sectors of government and society.

Previously, the Ministry of Public Health had been the sole governmental agency responsible for managing

the HIV/AIDS response, and served as Secretariat to the National AIDS Committee. As soon as it became part of the Office of the Prime Minister, the Committee was able to function as a strong governance mechanism, with the Prime Minister chairing its quarterly meetings – a practice that would continue until 1999. The National Committee also established provincial (in 1992/1993) and regional (in 1994/1995) committees to help manage the response, and drew up a consolidated HIV/AIDS action plan for public agencies.

Positioning the programme in the Office of the Prime Minister was more than a symbolic demonstration that AIDS was a government priority. It gave the response political clout. It sent a signal to all government sectors that everyone had to contribute to the response. Fighting AIDS was placed on a par with safeguarding the nation. The mobilization of resources, commitment and action was being driven from the highest levels of government. Soon, that political commitment was being matched with greater financial support.

The Government also understood that successful HIV/AIDS prevention required a massive public information and education campaign. The approach taken was to unleash a steady flow of generic information about HIV/AIDS through the mass media – with the emphasis on explaining how HIV was transmitted and how infection could be prevented. Thailand's well-developed communications infrastructure would prove to be a huge advantage in this quest. And the fact that the vast majority of radio and television stations at the time were state controlled (many of them operated by the military) made it easier to launch such a concerted public information campaign.

In an extraordinary effort, information on HIV/AIDS was aired every hour on the country's more than 500 radio and seven television stations, and publicized

### **An interview with Anand Panyarachun, former Prime Minister of Thailand**

"When I was appointed Prime Minister in 1991, the disease was not yet that visible. I had to be shown figures and they were startling. Mechai was also having difficulty with some of our colleagues – they did not want to listen to the depressing story.

There was a lot of bureaucratic wrangling especially over the proposed AIDS campaign. The tourism industry was concerned that tourists would be scared off by this highly publicized education campaign on AIDS. Mechai, at this time, was not very popular in the tourism circles. But he knew that if he had the backing of the Prime Minister – there would be success. So he insisted that I chair the meetings (of the National AIDS Committee).

So, if you ask why Thailand was successful, high up on the list would be political commitment. If you didn't have an arbiter, a real leader up there, then some of this wrangling would not have been resolved. It could have gotten out of hand. Political leadership, the willingness to view the problem in a holistic manner and the understanding that AIDS has far-reaching social and economic implications were all key.

At the working level, you needed people with passion, people who really cared, who knew their business. You had to provide sufficient funds, make sure you could rely on accurate statistics, and ensure the health infrastructure was adequate. In these respects we were quite fortunate.

And, of course, we had to overcome the denial. Back in 1991 there were still many people who, for whatever reasons, genuinely believed there was not a problem.

I think we started a very successful experiment, and it lasted for six to seven years. But now it's 13 years later. Are we being as successful? I think that we have lost the momentum. The fight against AIDS has to be a continuing process – you cannot afford to lose the momentum. I think the Government has to rededicate itself to this fight against AIDS.

The basics don't change that much. You have to ensure there are sufficient and effective budgetary allocations. I would still stress the preventive side, along with treatment and care – which also costs so much more. You would also have to see whether the tools that worked so well before are still suited for today's epidemic. What was successful five to ten years ago may have to be revised, may have to be redefined or fine tuned. In particular, we have to ask ourselves whether we have relaxed too much on educating young people, whether we have neglected our responsibilities to raise awareness and educate our people sufficiently about AIDS."

*Transcript from interview, March 2004*

in newspapers and magazines. Segments on radio and TV candidly emphasized the risk of contracting HIV and other sexually-transmitted diseases and stressed the need for condom use, particularly in commercial sex. They even offered tips for women to try to persuade their partners to use condoms. The earlier fear-and-panic-inducing themes were abandoned and replaced with more compassionate and practical messages that portrayed HIV/AIDS as a challenge for the whole of Thai society.

NGOs lobbied for more candour and information about the epidemic, the safeguarding of human

rights and compassionate care for AIDS patients. Even more importantly, and partially thanks to Mechai Viravaidya's ties with non-governmental and community groups, the door was opened for NGO involvement in the policy-making process. Indeed, the first five-year National AIDS Plan (1992-1996) reflected some of this NGO access and influence.

Drawn up by the National Economic and Social Development Board (NESDB), the country's central planning agency, the new AIDS strategy expressed an important conceptual shift away from individualized public health interventions to a wider community-



based response. The plan recognized the need to mobilize communities and society at large to help prevent the spread of HIV, to care for the ill, and to defuse the stigma and discrimination that violated the human rights of people living with HIV/AIDS.

The new approach required a wide range of public agencies to assume a role in the response. It also meant that the Government could not do it alone. Civil society, including private sector enterprises, had to join in. Potentially important players and structures were drawn into a collaborative effort – making for a broad-based approach that could take advantage of the strengths and attributes of all contributors.

The National AIDS Plan was formally integrated into Thailand's five-year development plan, expressing an understanding that the AIDS epidemic was bound up with the broader social and economic development of the country. The Plan also provided a framework for setting priorities and resource allocation. The Ministry of Interior, for example, was tasked with the job of ensuring that governors chaired their respective provincial AIDS committees and that AIDS strategies formed part of their provincial economic and social development plans.

AIDS was now being positioned as a societal challenge, and the perspective on prevention was widening

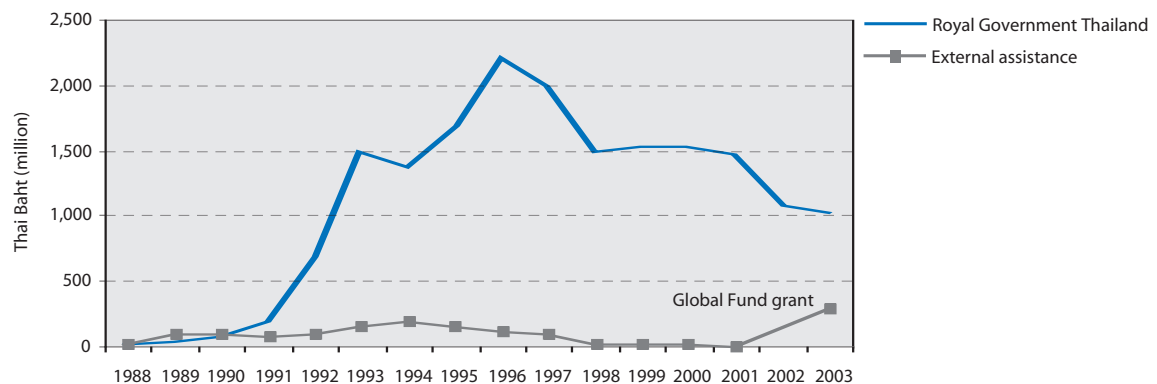
accordingly. Rather than associating risk strictly with individuals (who, in theory, could be persuaded to adopt safer behaviour), greater appreciation emerged of the underlying social, economic and cultural forces driving the epidemic. With this came a gradual push for life-skills education for young people and efforts to offer young women alternatives to sex work – though these would, for many years, remain minor elements of the overall response.

The core goal of the intensified response launched in the early 1990s was to swiftly generate awareness of the disease and of how to prevent infection. This strategy created a supportive environment for the focused interventions that were aimed at dissuading men from buying sex and persuading sex workers and their clients to use of condoms.

### Funding is boosted

During the early, hesitant stages of Thailand's response in the 1980s, the funding devoted to tackling the epidemic was clearly inadequate. In 1988, the Royal Thai Government spent just USD 684,000 on HIV/AIDS. The bulk of the funds came from donors. Overseas development assistance (mostly from the WHO, UNDP, European Union, USAID, Norwegian Church Aid and GTZ) comprised about 73 percent of total expenditures on HIV/AIDS in 1988 and 90 percent in 1989.

**Figure 3.1 HIV/AIDS programme finance by source, 1988-2003**



Notes: 1. Figures for 1988-2001 represent budget support directly to the HIV/AIDS programme.

2. Figures for 2002-2003 represent actual expenditure of the HIV/AIDS programme. These figures did not include some HIV/AIDS programme spending that has been absorbed by universal health care coverage, such as prevention of mother-to-child transmission, universal precautions and opportunistic infections treatment.

Sources: Bureau of the Budget, *The Annual Budget Act*, various years; AIDS Division, Ministry of Public Health; 1988-2001; External assistance during 1988-2001 obtained from Department of Technical and Economic Cooperation, Ministry of Foreign Affairs; Comptroller General Department, Ministry of Finance; Global Fund for AIDS, TB, and Malaria in 2003, disbursement as of June 2003.

### A special contribution from Mechai Viravaidya

"When AIDS started in Thailand, there was total denial; there was this fear that we would somehow lose our reputation as being a 'clean' country and therefore lose tourism. At the beginning, it was prohibited to have information about HIV/AIDS on radio, television or any government-owned media network. I tried to overcome this objection, but those were difficult days. Very small amounts of money were provided. At that time there was very little financial and no political commitment from the Government. Some of us recognized that this failure to commit resources would destroy all the advances in public health that had been made over the past few decades.

We did a study to determine probable scenarios from 1990 to 2000 if nothing was done about HIV in Thailand. The projections indicated that we would have almost four million HIV-infected people by the year 2000. We would lose about 25 years of productive work from each person, and 20 percent of our GDP annually. That would be far greater than any economic downturn that Thailand has ever experienced or anticipated.

This became very, very important. The people who ran our country were not convinced that a 'health issue' could be a major threat to national security. But when you talked about money, then they began to realize how many people we would lose and how many we would need to retrain. The NGO sector, which was small, also started some public information programmes. The Rockefeller Foundation gave us some money to develop a public information program, which we hoped would be broadcast on radio and television. I went to the radio stations and television networks, but they said, 'No, we are not allowed to'. We kept pushing.

Then, one day, I got to play golf with the then Prime Minister, Chatchai Choonhavan and I pleaded with him that he had to act. He relented. 'I'll let you brief the cabinet,' he said. And I did. They listened. I don't know whether they believed me or not.

There was a *coup d'état* soon afterwards, and a change of government, bringing in an excellent Prime Minister, Anand Panyarachun. He accepted that AIDS was a national security issue and that we could not regard it as solely a health problem. The most powerful politician must lead the response, and I convinced him that he should chair the National AIDS Prevention and Control Committee, not the Minister of Public Health. Ministers are not the most powerful, they cannot demand the full cooperation of others, and they cannot order a change in the budget – but the Prime Minister can.

So, once we had political commitment, we got financial commitment. The budget increased 20-fold from that day. Every ministry was involved in AIDS prevention and education, especially those ministries that had contact with the public. The Ministries of Education, Agriculture, Interior, even the Judiciary were given training. Every ministry had a budget and a role. Money was made available to both education religious organizations. We also asked businesses to contribute to the training of workers in offices and factories.

We introduced the 100% Condom Programme. This meant that every commercial sex establishment had to have condoms, and the workers were told that every customer had to use a condom. If he refused, he must be reported to the manager. This programme actually grew out of the steps taken during the Vietnam War, when many American soldiers took R&R in Thailand. In those days, brothel workers could go for a check-up every week. If she was found to be infected with a sexually-transmitted infection, her establishment received a letter. The second time, you close for a day; the third time, a week; the fourth time, a month, and so on. It worked. This really increased condom use.

Education on HIV/AIDS was introduced in all schools, from primary level upwards, and it was also provided through religious institutions. The whole society was involved, including the movie industry and mass media. State-controlled radio and TV stations were required to broadcast one half-minute of AIDS education during every hour of broadcast time. So for several years, everyone in Thailand got the message."



**Mechai Viravaidya**

Senator, former Minister to the Prime Minister's Office, and Chairman  
Population & Community Development Association (PDA)

Two years later, the ratio of donor to national resources had dramatically reversed. By 1991, more than 72 percent of HIV/AIDS spending was being financed by the Thai Government. By 1993, donor funding constituted only 10 percent of Thailand's total expenditure on HIV/AIDS, and dropped further to just 5 percent in 1996.

Even more dramatically, the overall funding for HIV/AIDS work had soared. By 1997, the country's annual AIDS control budget stood at USD 82 million, 96 percent of it financed by the Thai Government (see Figure 3.1).

Resource allocations also shifted in support of a multisectoral response to HIV/AIDS. Prior to 1992, Ministry of Public Health had been the only government agency with a specific budget for implementing the HIV/AIDS programme. With the National Plan for AIDS Prevention and Alleviation now assigning each public agency a role in the AIDS response, the Office of the Prime Minister requested that all line ministries be allocated HIV/AIDS funds. In addition, some funds would be allocated to support NGO and community initiatives.

Without the funds, the involvement of various ministries would have been long on posture but short on substance. A shared sense of responsibility and accountability for fighting AIDS was now taking root.

### **A call to all ministries**

In reality, the multisectoral approach taken in Thailand would turn out to be less all-embracing than it appeared. While the National AIDS Plan sought to strike a balance between tackling public health and wider social aspects of the epidemic, budget allocations and expertise were still skewed toward the health sector. In part, this reflected the fact that public agencies had little, if any, experience at drafting and implementing HIV/AIDS activities, let alone smoothly integrating them into their core business.

While the health sector was managing the bulk of the interventions (such as blood safety, condom promotion among commercial sex workers, and breast milk substitution to prevent mother-to-child transmission), other sectors took on other important HIV/AIDS tasks. Notwithstanding the aim of enlisting all ministries in the national programme, the main actors were the Office of the Prime Minister, Ministry of Public Health, Ministry of Defence, Ministry of Education, Ministry of Interior, and the NGO community.

The Ministry of Defence promoted condom use and provided AIDS education to new conscripts. It also offered counselling and testing, and assisted in HIV/AIDS-related research and development. The Ministry of Education launched peer education programmes among students and an annual national competition among schoolchildren at different levels in essay writing on HIV/AIDS. The private sector, meanwhile, was slow to join the effort. It was not until 1993 that the Thailand Business Coalition on AIDS was formed with the aim of promoting HIV/AIDS education and prevention in the workplace.

Within the Office of Prime Minister, the National AIDS Committee created an AIDS Policy and Planning Coordination Bureau, which was made responsible for coordinating and reviewing AIDS policies and plans, coordinating information campaigns, seeking financial support from the Government and donors, and monitoring the implementation of the AIDS plans. The Bureau played a crucial role at a critical phase of the epidemic, enlisting a wide range of stakeholders and coordinating the ever-increasing complexity of the response.

Then in 1994, continuing in the spirit of strategic pragmatism, the authority for coordinating the overall AIDS response was shifted back to the Ministry of Public Health's AIDS Division, while the Prime Minister continued to chair the National AIDS Committee. The multisectoral mobilization had taken root and the Bureau was no longer needed. The Ministry of Public Health, which had already been the main player throughout this period, took over and continued to draw in the other ministries as appropriate.

### **Strategic prudence**

Thailand's epidemic arrived in waves that tended to affect specific sections of the population. By 1990, sentinel surveillance had spotlighted the main chains of HIV transmission clearly enough to show that sexual transmission associated with commercial sex was the driving force. In one circuit, sex workers and clients were infecting one another. In another, overlapping circuit, they were infecting their regular partners and spouses, and, indirectly, their children. The Government strategically opted to concentrate its efforts on reducing the likelihood of HIV transmission among those who were most likely to spread the virus: sex workers and their clients.

### Box 3.1 Covering all the bases

The 100% Condom Programme started as a pilot in Ratchaburi province and was designed to plug a major hole in efforts to promote condom use: sex establishments that insisted on condom use were liable to lose business to competitors that did not make the same demands. There was, in other words, a strong financial disincentive for brothel owners to enforce safe sex in their establishments. That disincentive had to be removed. Regional Communicable Disease Control officials opted for a 100 percent condom use approach; if all sex establishments participated, clients would be left with the choice of either using a condom or not being able purchase sex.

A collaborative effort was pieced together, involving local authorities, public health officers, sex establishment owners, the police and sex workers to ensure that clients could not purchase sexual services without condom use throughout the province. Early results were positive – rates of sexually transmitted diseases dropped quickly and sharply – and provided the evidence needed to persuade decision-makers that the programmes could and should be applied across the country. Soon, the initiative was expanded to 13 provinces, where the impact was also quickly evident. It became the genesis of the national 100% Condom Programme that was implemented in 1992 in all provinces.

Sex work was (and remains) illegal in Thailand. Rather than invest vast resources and energy into trying to enforce that prohibition, authorities adopted a pragmatic approach: they would seek to cut the demand for commercial sex and, at the same time, promote consistent condom use. The main instrument was a countrywide “100% Condom Programme” carried out amid a massive HIV/AIDS public information campaign.

#### The 100% Condom Programme

By 1992, the 100% Condom Programme was in full swing across the country, an aggressive safe sex campaign targeted at sex workers and their clients (see Box 3.1). A classic carrot-and-stick approach was adopted. The Ministry of Public Health, provincial and police officials briefed owners of sex establishments, informing them that they would incur penalties if they allowed customers to have sex without a condom. Penalties would range from the temporary to indefinite closure of non-abiding establishments. On the other hand, the authorities would provide free condoms, information material and arrange for sex workers to have routine examinations at STD clinics.

The 100% Condom Programme is a good example of a multisectoral approach to prevention. It called for collaboration between the National AIDS Committee, provincial and regional health workers, local political officials, the police, sex establishment owners and sex workers. Considerable effort also went into bringing provincial governors on board, and it paid off. Cooperation occurred with threats of possible sanctions and with the political legitimacy of the national Government.

Although the penalties for non-compliance of sex establishments were seldom applied, the self-regulatory web spun between provincial and local government leaders, health authorities, the police, and brothel owners proved sturdy enough. In many ways, the 100% Condom Programme did not conform to the standard definition of public health education, which usually involves teaching activities that can bring about voluntary behavioural changes. Nonetheless, it was highly effective. When a team of newspaper reporters decided to test the 100% Condom Programme by visiting Chiang Mai with the aim of buying sex without a condom, they failed.

Identifying sex establishments was critical. A list of sex establishments that were not enforcing the 100 percent condom policy were targeted and visited.<sup>9</sup> Men seeking treatment at STD clinics were asked where they had contracted the infection (so-called “contact tracing”). Most could name a specific sex establishment, which outreach workers then visited to test the sex workers, provide them with safe sex information and condoms, and encourage them to seek treatment at the clinics.

Interviews undertaken in 1997 with owners of sex establishments in 24 provinces found that 90 percent had been visited by health workers and in half the instances visits were at least once a month. STD infection rates were monitored among commercial sex workers receiving routine examinations at the clinics. The authorities also kept track of the number of condoms provided to each sex establishment.

### Box 3.2 Sixty million free condoms

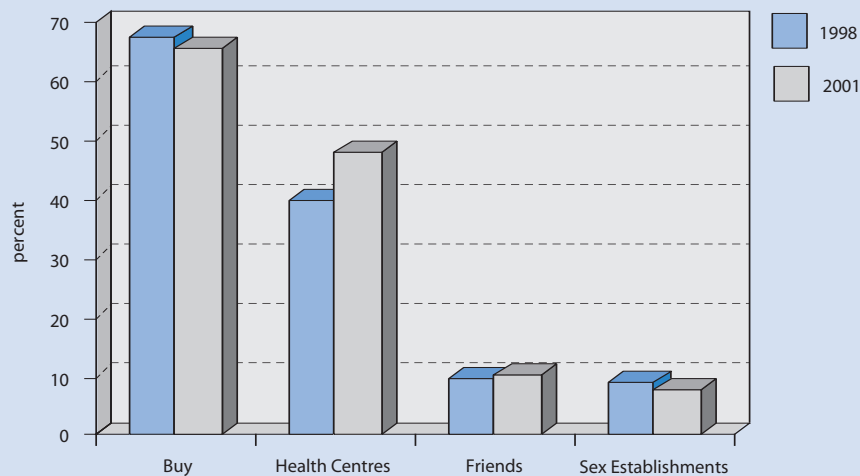
Ultimately, the success of the 100% Condom Programme depended on how accessible high-quality condoms were. Doubts about the quality of the condoms or interruptions in supply would have sapped the Programme of momentum. The Government, therefore, instructed distributors and vendors that condoms had to be stored in air-conditioned rooms where possible, or in ways that avoided exposure to humidity (on shelves raised from the floor, for example) and sunlight.

By 1992, some 60 million condoms were being provided free of charge annually by the Ministry of Public Health. In most cases, condoms (typically in a box of 100) were handed to sex workers when they visited STD clinics for check-ups, but they were also distributed to other STD clinic patients, in the military, at workplaces and hotels and through NGOs.

A 1997 evaluation of condom distribution found there had been few supply problems, save for occasional shortages of particular sizes. Not everyone appreciated the appearance of the condoms – the evaluations reported frequent complaints about dull colours and unattractive packaging.

The volume of condoms the Government distributed free of charge declined dramatically after the economic crisis of 1997-1998, due to a combination of budget cuts and concerns that condoms were in oversupply. A social marketing approach was subsequently adopted. Interestingly, studies found no evidence that this affected the rates of condom use in sex work. By the late 1990s, almost 70 percent of condoms were being privately purchased (*see Figure 3.2*).

Figure 3.2 Sources of condoms, 1998 and 2001



Source: National Statistical Office, Public Opinion Survey on Public Relation about HIV/AIDS 1998 and 2001.



# Racking up the Achievements

# 4

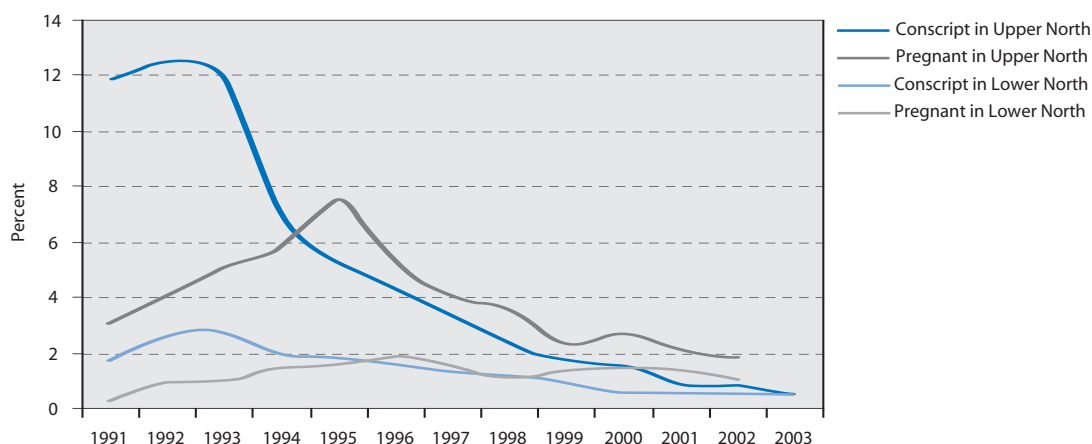
As implementation of the 1992-1996 National AIDS Plan progressed, policy-makers had to contend with the prickly fact that evidence of success would be delayed. The desired chain of effects of improved HIV/AIDS awareness and knowledge, altered behaviour and lower HIV infection rates was complex and subject to a range of variables, not all of which were obvious. Even if successful, it would take several years before proof materialized that the programme was working. Both policy-makers and those on the frontline had to “keep the faith” as new epidemiologic data continued to show a steadily worsening epidemic.

Indeed, HIV prevalence among conscripts in the Royal Thai Army in 1993 had risen to almost 4 percent nationally and over 12 percent in the upper North. By 1994, HIV prevalence among brothel-based sex workers had soared past 30 percent in the North

and Central regions. The national rate of HIV-infection among pregnant women was rising too – from 0.5 percent in 1990 to 2.4 percent in 1995. The rising trend among pregnant women lagged a few years behind that among commercial sex workers and their clients – reflecting the fact that most of these women had been infected by male partners who had earlier acquired the virus during commercial sex.

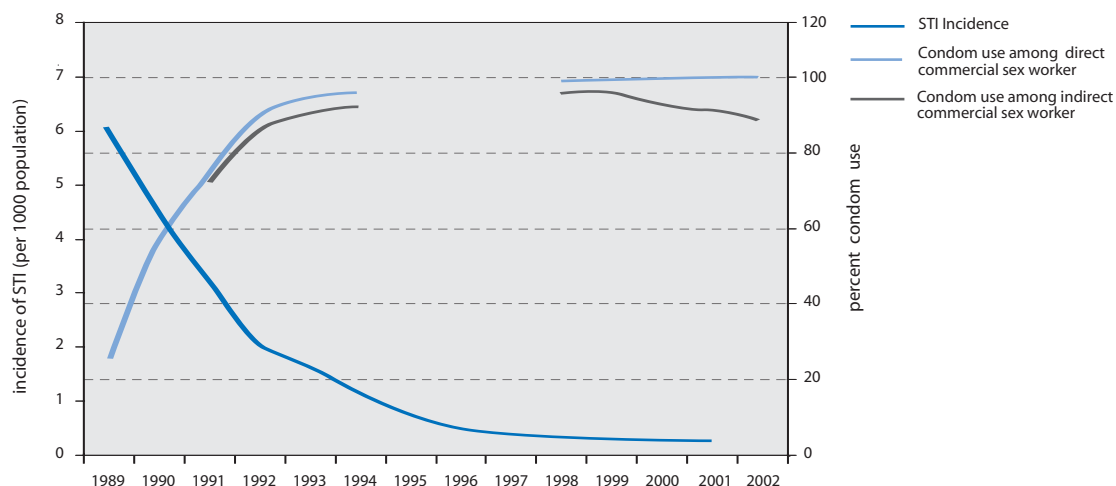
A comparison of HIV trends among pregnant women and army conscripts (many of whom were visiting sex workers) in the North (see Figure 4.1) clearly shows that lag effect. In the upper North, the situation was grave. Prevalence of HIV among pregnant women in Phayao province reached 10 percent in 1993, while among women younger than 25 giving birth to their first child at Chiang Rai Hospital, it had risen to 6.4 percent in 1994.<sup>10</sup> In some quarters, the AIDS response was being viewed as “too little, too late.”

**Figure 4.1 HIV prevalence among pregnant women and military conscripts in the upper and lower North, 1991-2003**



Source: Armed Forces Research Institute of Medical Science & Bureau of Epidemiology.

**Figure 4.2 Percentage of commercial sex workers (CSW) who used a condom during last sexual intercourse, and incidence of sexually transmitted diseases, 1989-2003**<sup>11</sup>



Note: Sexually transmitted diseases include syphilis, gonorrhoea, chancroid, venereum, granuloma inguinale, and pseudogonorrhoea. After 1995 this particular monitoring system was discontinued (hence the gap), before resuming again in June 1998.

Source: Bureau of Epidemiology, Ministry of Public Health.

### Signs of success

One stream of data brought early hints of a more positive outcome. Thailand's sexually-transmitted disease (STD) reporting system was showing a steady drop in STD rates. The number of male STD patients reporting to public clinics was falling sharply – from about 220,000 a year in 1988 to fewer than 50,000 in 1993. The number of new STD cases declined from 6.5 per 1,000 persons in 1989 to 3.2 per 1,000 in 1991 and 1.6 per 1,000 in 1993. And they would keep dropping, reaching as low as 0.27 per 1,000 in 1999. Overall, the number represented a 20-fold decrease in a decade.<sup>12</sup>

However, there existed the possibility that the drop in STD rates measured in government clinics was an aberration. What if these large numbers of people seeking treatment for STDs were drifting from government to private clinics? But this was not so since private clinics and doctors were similarly reporting no increase in STD patients. Neither was there any evidence that more people were avoiding medical services and trying to treat STDs themselves. In fact, most drug stores surveyed in 24 provinces reported a drop in sales of antibiotics for STD treatment and a notable increase in condom sales. In other words, the drop in number of STD patients at government clinics did reflect a genuine decline in STD prevalence.<sup>13</sup>

The next evidence of progress was a decline in HIV prevalence among 21-year-old army conscripts.<sup>14</sup> When the intake of new conscripts in early 1993 was tested, HIV prevalence was just under 4 percent. But among the intake in late 1993, prevalence was lower, and it kept dropping in testing among subsequent intakes. The young age of the conscripts meant that infections would have occurred quite recently. HIV infection levels among them, therefore, could be read as a proxy for HIV incidence, or the rate of new infections annually.

Another trend was a shift in regional prevalence rates (see Figure 4.3). For example, the upper North reached 12 percent while the lower North did not rise above 3 percent. The South also tended to have higher rates than the national average. By 1995-1996, the trend of decreasing HIV prevalence appeared among conscripts from all regions, except the South, where it was rising.

### Changing behaviour

What was causing these declines in HIV prevalence? In 1991, 57 percent of the new military conscripts in six northern provinces told researchers they had sex with commercial sex workers. Four years later, well into the intensified AIDS response, that number declined by more than half (see Figure 4.4). In a few short

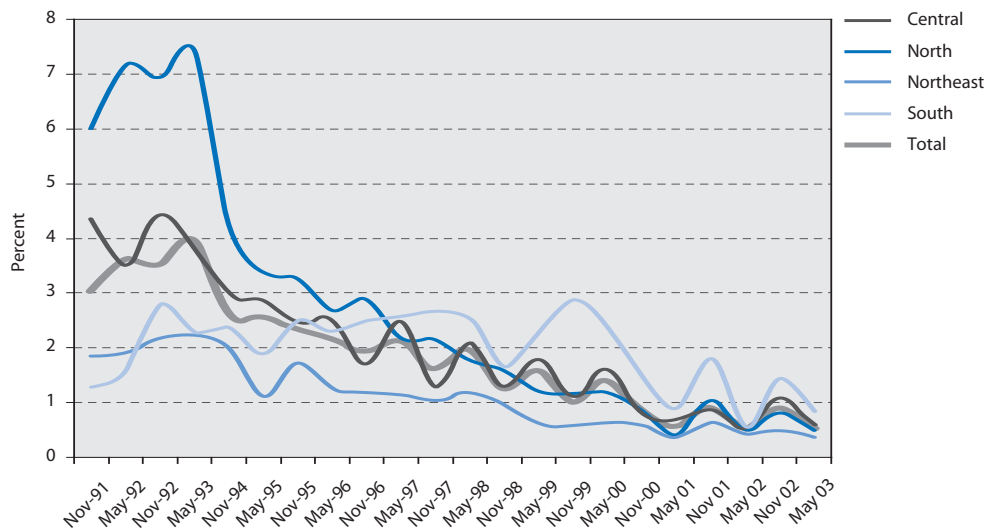


years, what once had been regarded by many young Thai men as a rite of passage to manhood, commercial sex had become a source of consternation.

A qualitative study among young men in 1996 found that perceptions of commercial sex had changed from “fun and normative” to “worrisome and questionable.”<sup>15</sup> Just as important was the fact that more and more

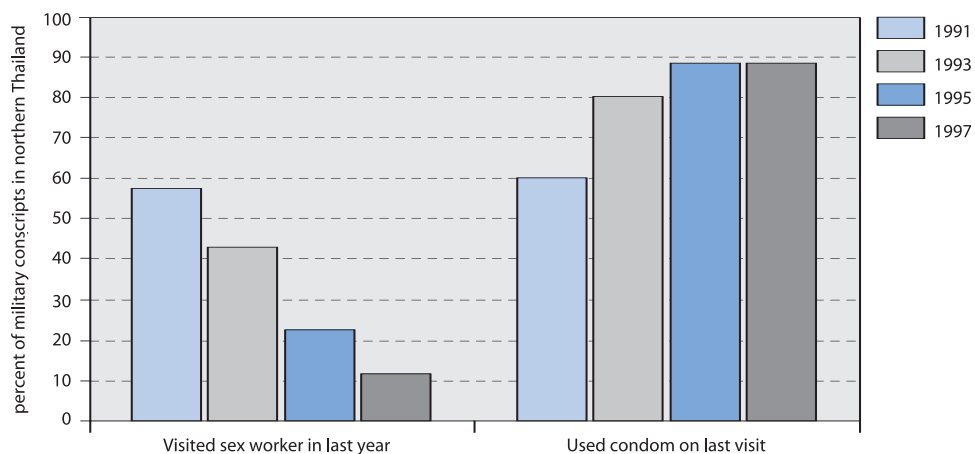
soldiers were using condoms at sex establishments – around 90 percent in 1995, compared to 60 percent in 1991 (see Figure 4.5). Increased condom use and fewer visits to sex workers had led to reduced incidence of STDs and lower HIV prevalence. The massive public information and education campaign seemed to be paying off.

**Figure 4.3 HIV prevalence among army conscripts, 1991-2003**



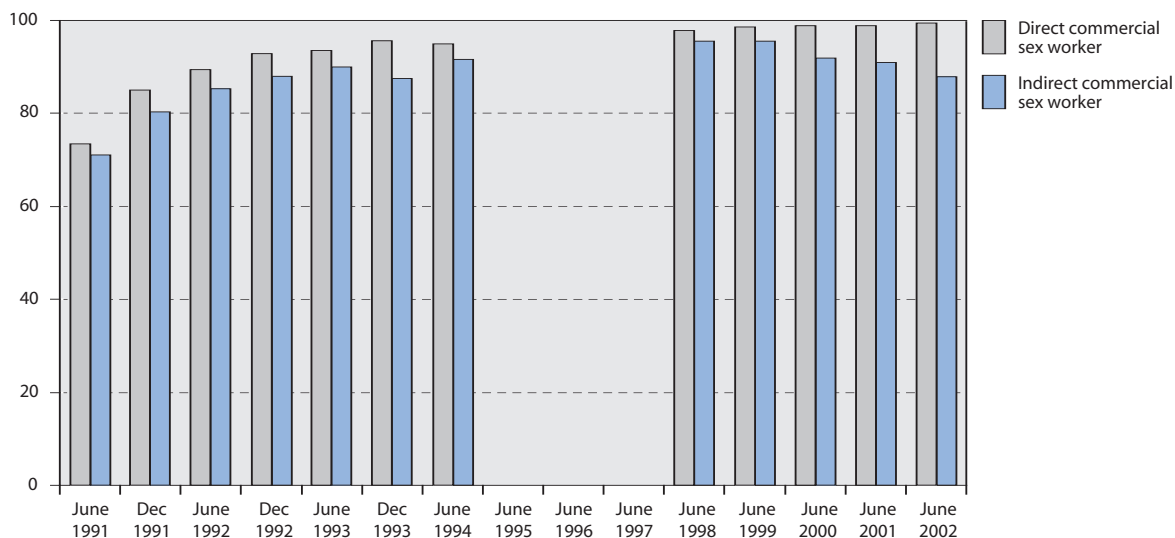
Source: Armed Forces Research Institute of Medical Sciences, Royal Thai Army, Ministry of Defence.

**Figure 4.4 Percentage of condom use among military conscripts from northern Thailand who visited sex workers, 1991-1997**



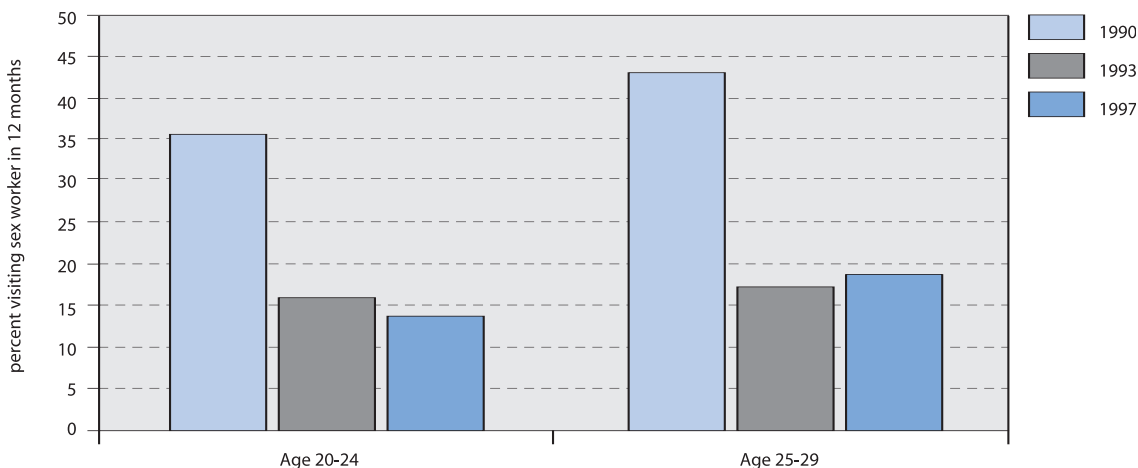
Sources: UNAIDS (2001); base on Nelson, et.al (1998) HIV infection in young men in northern Thailand, XXII World Aids Conference, Geneva.

**Figure 4.5 Condom use with recent clients as reported by direct and indirect commercial sex workers (CSW), 1991-2002**



Note: Data from 1995 to early 1997 are not available.  
 Source: Bureau of Epidemiology, Ministry of Public Health, Thailand.

**Figure 4.6 Urban males visiting sex workers, 1990-1997**



Note: Data from 1995 to early 1997 are not available.  
 Source: UNAIDS (2001) *HIV Prevention Needs and Successes: A Tale of Three Countries, an Update on HIV Prevention and Success in Senegal, Thailand and Uganda*, based on Sittitrai et. al (Survey of Partner Relations and Risk of HIV Infections, Thailand Red Cross; Thongthai et.al Media Effectiveness Survey, Mahidol University; Chumratritirongj et.al, Review of the 100% Condom Programme, Mahidol University).

Similar results were being detected among commercial sex workers. Reported condom use in sex work rose to more than 80 percent in 1992. It was highest in the north. Among occasional customers condom use was found to be high in all types of settings (brothels, massage parlours, bars, restaurants, hotels, etc.).

The highest condom use rates were in the more structured and controlled settings such as brothels and massage parlours. At the same time, STD rates among commercial sex workers decreased four-fold from more than 200,000 cases annually in the late 1980s to fewer than 50,000 in 1994.

Studies between 1993 and 1996 in Bangkok revealed similar findings. Condom use in the last sex exposure of brothel-based sex workers rose from 87 percent to 97 percent over that period. While for indirect sex workers (for example those working in bars), condom use increased from 56 percent in 1993 to 89 percent in 1996.<sup>16</sup>

The public education campaigns, along with stepped-up anti-HIV activities at STD clinics, were deterring

many men from visiting commercial sex workers. The percentage of urban men visiting sex workers dropped by more than half between 1990 and 1993, and stayed at roughly that level (see Figure 4.6).

Researchers tracking sexual behaviour nationally found that between 1990 and 1993, the percentage of men reporting premarital or extramarital sex dropped from 28 percent to 15 percent while that of men visiting sex workers fell from 22 percent to

#### Box 4.1 What about sex workers themselves?

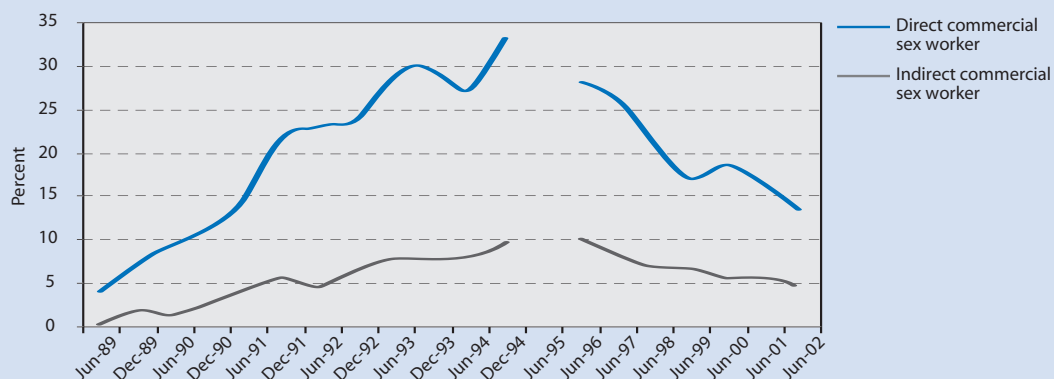
Despite changes in behaviour, HIV prevalence among brothel-based commercial sex workers rocketed past 30 percent in 1994 before starting to decline. Prevalence would eventually halve, but in 2002 was still high, at around 13 percent (see Figure 4.7). This trend, along with the shift towards indirect sex work, suggest that substantial HIV transmission between sex workers and clients continued.

The empowerment of female sex workers (along the lines of the Sonagachi experiment in India, for example) was not a core part of the 100% Condom Programme. While sex workers had access to treatment for sexually transmitted diseases, adequate education and negotiating skills training (for example training on how to properly use a condom or persuade a reluctant client to use one) appear to have been less common. A handful of NGOs, among them EMPOWER, have been providing such training.

A 1997 evaluation of the 100% Condom Programme concluded that most sex establishments did not run education activities of their own, despite high staff turnover. The survey indicated that fewer than 2 percent of sex workers named a person associated with their establishment as an important source of information about the Programme. Most sex workers said they learned about the condom programme from television or health workers.

A supportive environment was created for condom use and better sexually-transmitted disease care. However, more likely it is that the threat of possible sanctions against brothel bosses was transferred over to the sex workers. Ultimately, it was up to each sex worker to convince clients to use condoms. To some extent, this did provide sex workers with bargaining power over clients. A sex worker could turn the fact that unprotected sex carried the threat of punishment or expulsion for her into a simple formula for clients: "No condom, no sex."

Figure 4.7 HIV trends among direct and indirect commercial sex workers, 1989-2002



Note: Data from 1994 and 1995 are not available.

Source: Bureau of Epidemiology, Ministry of Public Health.

10 percent.<sup>17</sup> When some 4,000 young men, aged 20-29 years, were interviewed during a 1997 evaluation of the 100% Condom Programme, it transpired that although half of them had purchased sex at some point, only 16 percent had done so in the previous year.<sup>18</sup> Smaller studies in Bangkok also found less extramarital sex occurring in 1997. According to some projections, such aversion to risk behaviour – using condoms or avoiding commercial sex – probably halved the number of people being infected with HIV.<sup>19</sup>

Thailand was the first Asian country to launch large-scale preventive action. It demonstrated that a well-funded, politically-supported response that further strengthens technical and information-gathering capacities can save millions of lives. An extensive system for nationwide HIV surveillance which started in 1989, had monitored the growth of the epidemic from its early stages. Findings from that surveillance were disseminated not only to policy-makers, but also extensively through a strong mass communication system, thus heightening public awareness.

Behavioural and epidemiological studies established the extent of risk in various population groups and identified sex work as the major contributor to the epidemic at the time. Interventions exploited the strong healthcare infrastructure and were refined on the basis of experiences in the field and on research aimed at enhancing effective practices. The systematic collection of evidence showing the impact of interventions convinced policy-makers to sustain the political and financial support.

### The contributions of NGOs and people living with HIV/AIDS

As early as 1984, at least 50 NGOs were working on HIV/AIDS.<sup>20</sup> The number swelled in the next few years. In 1989, the Thai NGO Coalition on AIDS was formed to coordinate some of the work. The purpose of the Coalition was to exchange experiences and information, reduce duplication of work and assemble a stronger, more unified front for advocacy campaigns. The idea of the consortium caught on, and each region in Thailand would eventually form its own coalition.

Exactly how many AIDS NGOs were active by the time the 1992-1996 National AIDS Plan was being implemented is unclear. One 1995 study counted 189 NGOs working on HIV/AIDS, although the Social Welfare Department tallied only half as many the year before.<sup>21</sup> By 1997, 184 AIDS NGOs were approaching the Government for financial support. Indeed, as Table 4.1 illustrates, both the number of AIDS

NGOs and the extent of governmental budgetary support for their activities increased substantially between 1992 and 1997. By contrast, budgetary support for NGOs focusing primarily on health and/or social welfare did not rise during that period. Many of these NGOs were working among stigmatized social groups, developing participatory forms of AIDS education and client-centred counselling and support services, as well as campaigning for a human rights-based approach.

The number of groups of people living with HIV/AIDS also increased. By 1999, as many as 224 such groups were believed to be active in six northern provinces (Chiang Mai, Chiang Rai, Lumpoon, Lampang, Phayao, and Mae Hong Son). These groups and their counterparts elsewhere in the country were offering peer support and community AIDS education activities, and trying to offset the stigma and discrimination surrounding the epidemic.

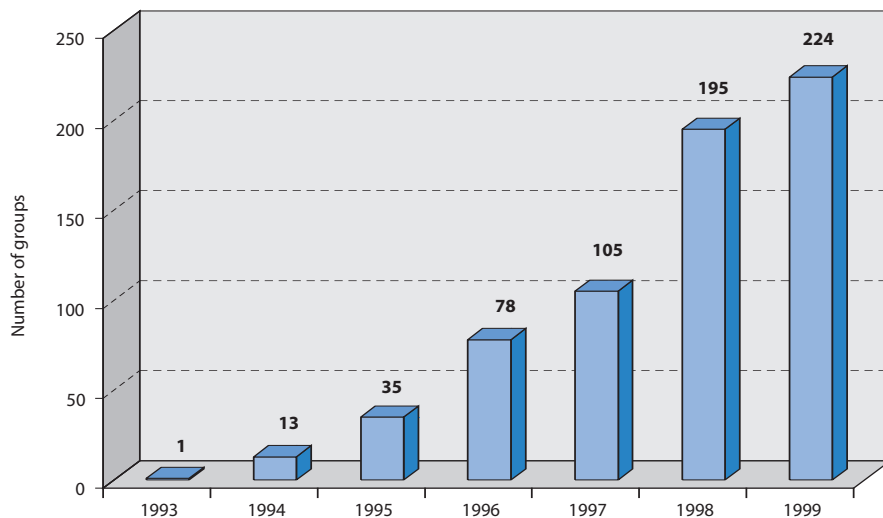
**Table 4.1 Number of AIDS NGO and budget support, 1992-1997**

Year	No.	Budget Support (million baht)
1992	23	11.9
1993	39	15
1994	76	10
1995	94	75
1996	122	80
1997	184	90

Source: Phoolchareon et al., (1998).

As the numbers of civil society groups working on HIV/AIDS increased, so did their variety. While some emerged organically at the community level, others evolved with the help of international organizations. Some adopted clear structures and procedures, while others remained loosely coordinated.

The groups of people living with HIV/AIDS tended to emerge in one of two ways. Some were formed spontaneously by people whose regular attendance at hospitals and common needs forged a bond between them. Initially a source of mutual comfort and support, many expanded their activities to include counselling and peer education. Other groups, particularly in the upper northern provinces, were set up by NGOs or public health agencies.

**Figure 4.8 Number of Groups of People Living with HIV/AIDS in upper northern provinces, 1993-1999**

Source: UNAIDS (2001), *Best Practice Documentation on HIV/AIDS for Community Mobilization: Case of Thailand*.

Even with these support groups, people living with HIV/AIDS still faced considerable social discrimination. Even in the early 1990s, people living with HIV/AIDS concealed their status. As AIDS moved into the spotlight and the national response intensified, conditions eased. From 1994-1995, both the groups and their members could operate and campaign more openly.

A network of people living with HIV/AIDS in the upper northern provinces was formed, with technical and financial support coming from both the public and private sectors. Realizing that their concerns meshed with broader socio-economic difficulties plaguing communities, many groups widened their focus. Indeed, in the aftermath of the economic crisis of 1998, there were internal debates as to whether groups should dissolve and integrate themselves into community social movements.

Many NGOs found themselves compelled to deal with the emerging AIDS epidemic they were observing in

the course of working on other issues. In the North, for example, the epidemic was seriously affecting poorer communities in which NGOs were already active. Financial and technical support – external and domestic – would play a role in prompting some NGOs to take on AIDS work.<sup>22</sup> Public agencies also would look to NGOs and groups of people living with HIV/AIDS to carry AIDS activities into at-risk populations they were not able to reach.

It took hard work to change attitudes towards people living with HIV/AIDS. Initially cast in the role of unfortunate victims who deserved help, people infected with the virus became seen – and increasingly treated – as vital players in the response. The NGOs pioneered this work. NGOs have also been more active among vulnerable groups, such as injecting drug users, men who have sex with men, and migrant workers. In recent years, groups of people living with HIV/AIDS and many AIDS NGOs have been placing emphasis on ensuring that treatment, care and support is available to those who need it.



---

# Factors of Success

# 5

How did Thailand make such inroads into the fight against HIV/AIDS epidemic? The most commonly cited reasons are the emergence of firm and focused political commitment, the active roles adopted by top political leaders, high levels of funding from the national budget, the mobilization of non-health ministries around HIV/AIDS, and the involvement of NGOs in policymaking and programming.

There were also other noteworthy, but understated, factors at play in Thailand's response. These include Thailand's comparatively strong healthcare infrastructure, the provision of reliable epidemiologic information and analysis, the successful targeting of the response on the main hub of HIV transmission at the time, and the feedback channels between programming experiences and policy-making. All were critical in helping to tackle the HIV/AIDS epidemic.

Tempting as it is to view Thailand's HIV/AIDS response as a programming blueprint, the real value rests less in the specific interventions (the content of the response) and more in how strategies and programmes were implemented (the form). The definitive feature of Thailand's response was arguably its pragmatism: the ways it utilized existing advantages and capacities, augmented those that fell short, and ensured that the entire enterprise acquired enough political, institutional and financial heft to succeed.

**Spirited political leadership and commitment** were achieved at the national level, and this spurred similar commitment at provincial and local levels. It was this commitment that led to the huge increases in domestic funding and support for the HIV/AIDS programme. It also provided the impetus for a response beyond the health sector, by helping to create an institutional environment in which broad-based cooperation could be created.

This top-level leadership and commitment is often linked to the Prime Minister directly chairing the National AIDS Committee during much of the 1990s. The Office of the Prime Minister also served on the Committee's Secretariat during the first part of that decade. This arrangement suited the circumstances and the phase of the epidemic at the time. It boosted the coordination and provided the political thrust for a prudent prevention strategy that zeroed in mainly on HIV transmission in sex work.

Since the late 1990s, however, HIV spread has become considerably more multifaceted and the impact of AIDS has grown. In such a context, top-level visionary leadership and a strong commitment certainly remain vital elements of a potentially effective response. However, there is some debate whether a centralized structure is still the most appropriate way forward. It might be that a priority now is to devise new, strong, but flexible coordinating mechanisms to match the complexities of such a heterogeneous epidemic.

**Government invested heavily in the response.**

Within a few years in the early 1990s, an HIV/AIDS programme that had been heavily reliant on donor support was being funded almost entirely out of the domestic national budget. Overseas development assistance had comprised about 90% of total expenditures on HIV/AIDS in 1989, when the total AIDS budget was under USD 1 million. Within three years, that budget had grown more than ten-fold, and by 1997, the annual AIDS control budget stood at USD 82 million, 96 percent financed by the Thai Government. This was a resounding manifestation of resolve. And this kind of investment served as one of the cornerstones in the bid to persuade a wider range of stakeholders across the country and civil society to mobilize around the HIV/AIDS programme.

**A wide range of actors and institutions were marshalled into a broad-based response.**

The Government recognized that a multi-pronged response, involving different sectors and at various levels, was needed to thwart the epidemic. Various public agencies, civil society organizations (including AIDS NGOs and groups of people living with HIV/AIDS), and businesses (including the media and entertainment enterprises) were drawn into a joint effort. NGOs gained influence in the National AIDS Committee, and were able to help shape policies and programmes. Such collaboration also lay at the heart of the 100% Condom Programme which, at provincial and district levels, enlisted the involvement of the police, local health officials, brothel bosses, sex workers, people in the tourism trade and others.

**Activism and mobilization by civil society, particularly people living with HIV/AIDS.**

Community groups, AIDS activists and NGOs instigated many of the earliest initiatives, often with the support of international donors. They also lobbied for an expanded response and, by the early 1990s, gained influence in policy-making and programme design processes (the National AIDS Committee, for example, included NGOs). Budgetary support for NGO and community-based AIDS work increased markedly in the early 1990s, though the support would still constitute a small portion of the overall HIV/AIDS programme budget. These groups have pioneered community-based efforts at the local level, and have often initiated activities when public sector services were absent or deficient. More can be done when the abilities of NGOs and community-based organizations are harnessed to work among hard-to-reach groups and communities.

**A massive public education and information campaign**

was launched via the media, thanks to the strong public communication infrastructure that existed, with radio and television stations broadcasting across the country to large audiences. It is estimated that about 90 percent of the population could be reached through the country's electronic media (most of which were state-controlled). At the same time, the gradual democratization of the public sphere was allowing for more critical views to appear in print media, which helped fuel public debate. The enthusiasm with which journalists, editors and producers sought and disseminated epidemiological evidence was key. They were keen to publicize the epidemiologic data and sentinel surveillance findings, and act as a kind of moderator of a wide public debate on HIV/AIDS. Unfortunately, this education and information campaign has faded in recent years.

**Prevention was strategically focused** on curbing HIV transmission among those people most likely to acquire and transmit the virus. Complementing it was a large-scale public education campaign that provided a supportive environment for focused interventions. Sex work did not account for all HIV infections, but it was, at the time, the hub of Thailand's epidemic – and the intensified response zeroed in on it. The response therefore could be marshalled against a compact target: reducing the spread of HIV through commercial sex (mainly by promoting the use of condoms).

**Pragmatism guided the prevention programme**, even though commercial sex remained officially illegal. Rather than base an AIDS response on stifling commercial sex, the Government more sensibly sought to regulate the commercial sex trade in line with its AIDS strategy. The results were spectacular. Unfortunately, a similar tolerant and pragmatic stance has not been taken with regard to injecting drug users, who now constitute a large share of new HIV infections.

**Wide coverage was achieved.** The bid to boost condom use in commercial sex was made across the country and applied to all known sex establishments. The option of seeking out "condomless" sex ("boxing without gloves," as popular male vernacular would have it) at a nearby establishment was not an option for the vast majority of clients. And the country had the advantage of Thais having been exposed to several decades of family planning activism (which included the promotion of condom use).

**Reliable information** about the unfolding epidemic primed greater political commitment, informed policies and guided the overall strategy. Systems were built to capture authoritative epidemiological and behavioural information, including a sentinel surveillance system that tracked the patterns of HIV spread among at-risk sections of the population. The information generated helped raise public awareness and captured the attention of political leaders and public opinion leaders (as did a series of projections to gauge the likely evolution and impact of the epidemic).

**The strategy built on existing health infrastructure.**

In the case of the prevention programmes, a strong sexually-transmitted disease clinic system proved vital. These clinic networks were used to serve both as avenues for the 100% Condom Programme, and as mechanisms for monitoring and evaluating its impact. Established in all provinces in the 1960s, and extended during the Vietnam War, these networks



served as excellent channels between the condom programme and the health system. Access to sex workers, clients, brothel bosses, and sexually-transmitted disease clinics was crucial for facilitating information gathering, performing health checkups, promoting condoms, and tracking compliance via male patients. Health workers in these clinics generally had already liaised with brothel owners and managers of the brothels as part of their clinical sexually-transmitted diseases check-up programmes.

**Learning by doing.** Rather than first drafting a comprehensive policy and then designing programmes accordingly, Thailand built large parts of its national prevention programme on the ground-work and experiences of a series of early, often province-wide initiatives. These were monitored and assessed, and provided relatively quick proof to policy-makers that solutions were available. They also provided early lessons for adapting and improving programmes. Policies could therefore incorporate or draw on this accrual of learning and adaptation.

Swift evidence of progress could also be used to advocate for expansion of the activities, as it was in the case of 100% Condom Programme. This serves as a reminder – often unappreciated – that sound, proven programming can build appropriate, sustainable policy. A lack of policy is not an excuse for delaying the launch of a prevention programme.

**Openness about condoms and sex:** There were other less tangible factors working in Thailand's favour. Reluctance to air sexual issues in public was not as big a hindrance as it has been in many other countries. Family planning initiatives including condom promotion, for example, had been carried out for several decades, and had helped foster more open-minded attitudes towards condom use. A generally tolerant approach was taken toward sex work. Unfortunately, injecting drug use and sex between men – prominent factors in Thailand's epidemic – tend not to encounter similar forbearance. On these fronts, efforts to reduce HIV infection still lag behind.



# Mixed Fortunes (1997-2003)

6

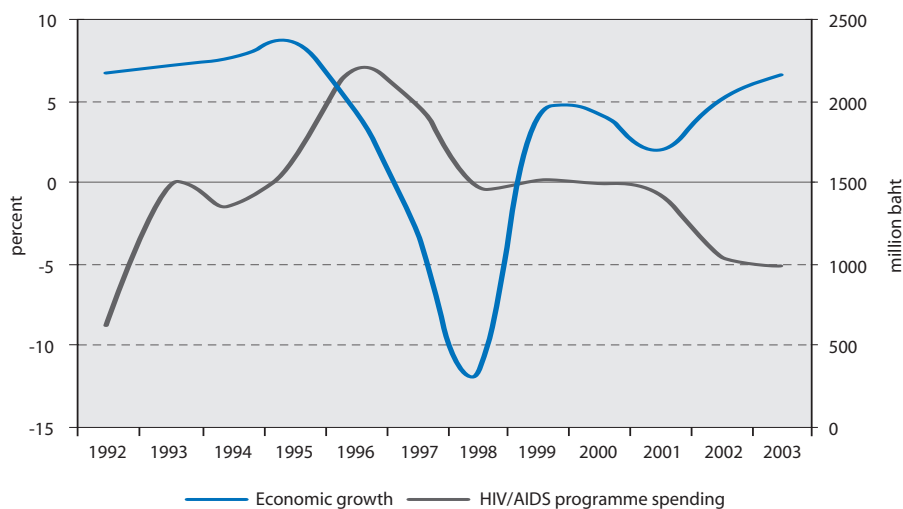
Thailand's response to the AIDS epidemic in the 1990s unfolded against a backdrop of a strong and confident push for democratic reform. These efforts brought tangible results, notably with the 1997 Constitution – dubbed the “people’s constitution,” and the ambitious goals and strategies outlined in the 8th National Economic and Social Development Plan (1997-2001).

*“...rapid economic growth has had negative effects on Thai culture, traditional ways of life, family, community and social values...development based only on economic growth without due consideration of human, family, community social and environmental dimensions cannot be sustained in the long run.”*

Drafted by the country's central planning agency, the National Economic and Social Development Board (NESDB), the 8th Plan drew on unprecedented consultation with NGOs and local communities, and took as its starting point a forthright recognition of the negative effects of inequitable and unbridled economic growth. The plan declared, for example, that:

In order to help remedy the situation, the Plan called for a shift to ‘people-centred development’ with strengthened community rights, decentralized government functions, enhanced public participation in policymaking, and improved governance.<sup>23</sup> Plans were made to revitalize education, healthcare and social welfare in terms of both quality and access.

**Figure 6.1 Economic growth and HIV/AIDS spending, 1992-2003**



Note: The HIV/AIDS programme in 2002 and 2003 did not include prevention of other-to-child transmission, universal precautions or opportunistic infections components, which were absorbed as part of by universal health care coverage.  
Sources: National Economic and Social Development Board; Bureau of the Budget, (1993-2000); Central Comptroller Department, 2000-2003.

The aligning of the National AIDS Plan with the 8th National Economic and Social Development Plan also posed some exciting opportunities. More resources were earmarked for NGOs, and ministries would also receive support for activities that went beyond that of the narrowly defined public health strategies. The new Plan aimed to promote a more holistic and broad-based approach to AIDS prevention.

### Knocked off-balance

Then came the 1997 financial crash, just as the new National AIDS Plan was being rolled out. The financial crisis had two far-reaching effects. It forced profound cuts and reorientation in the 1998 and subsequent national AIDS budget, effectively putting on hold key elements of the new Plan. And, as the currency was devalued and inflation increased, it sent the costs of imported medical supplies through the roof.

Responding to months of speculative forays into the Thai currency, in July 1997 the authorities allowed the baht to float on international currency markets, triggering a calamitous sequence of events. Creditors called in loans, massive capital flight ensued, and the value of the baht plummeted. Inflation soared, thousands of enterprises failed, and tens of thousands of Thais lost their jobs. Many of those who didn't lose their work watched their incomes shrink.

The shock of the economic downturn left Thailand reeling. Having averaged over 8 percent in 1992-1996, Thailand's annual GDP growth slumped to minus 2.6 percent in 1997 and minus 11.7 percent in 1998. Pressured by international financial institutions, the government resorted to fiscal austerity and cut successive budgets, with social programmes especially affected.

The social effects were soon in evidence. Unemployment rates increased in just a few months from 0.9 percent in August 1997 to 4.6 percent in February 1998. Underemployment more than doubled over the same period.<sup>24</sup> Having dropped to 6.9 million by 1996, the number of Thais living in poverty rose sharply to 7.9 million by 1998. Many of the poor were compelled to partake in illegal activities in order to make ends meet. There was evidence of increasing drug trade and use. For awhile, it seemed as if the rug of development progress had been pulled out from under Thailand.

### Belts are tightened

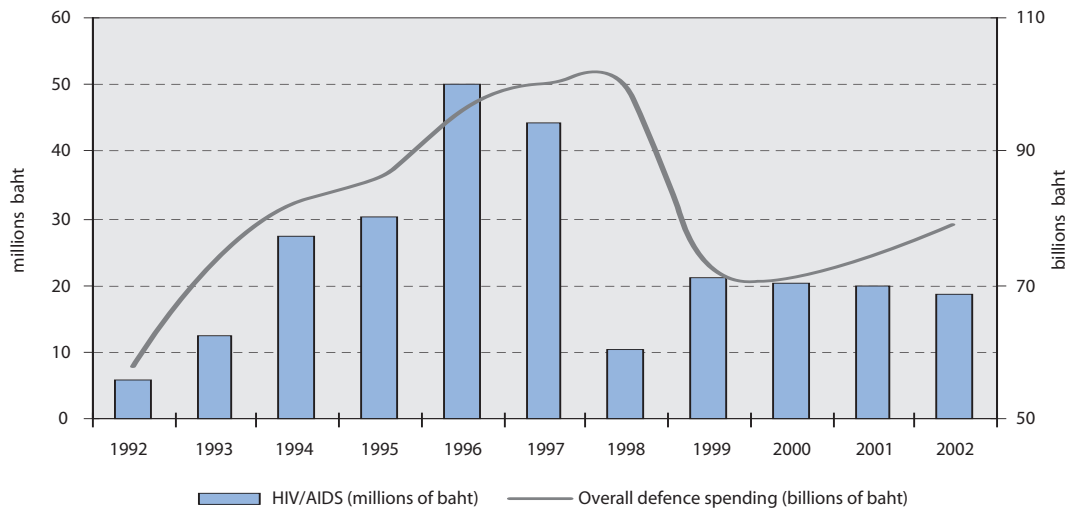
Tight fiscal policies led to substantial budget cuts, not least in social services. Almost 19 percent was slashed from the 982 billion baht approved earlier in the 1998 Budget Bill.<sup>25</sup> At first glance, the Government's HIV/AIDS budget appeared substantially depleted – from 1,987 billion baht in 1997 to 1,481 billion baht

**Table 6.1 Budget allocation and spending on HIV/AIDS programmes in various public agencies, 1997-2003 (in millions of baht)**

Agencies	1997	1998	1999	2000	2001	2002	2003
Office of Prime Minister	27.84	32.25	29.15	27.45	17.79	0	0
Ministry of Defence	44.10	10.39	20.99	19.58	18.90	18.12	16.55
Ministry of Interior	95.78	33.64	22.33	23.67	17.85	30.10	41.65
Ministry of Justice	0.43	0.18	0.90	0.48	0	0	0
Ministry of Education	31.49	24.66	21.93	20.50	0.43	0	0
Ministry of Public Health	1,369.86	1,009.01	1,149.68	1,080.20	1,132.49	767.85	743.51
Ministry of University Affairs	233.31	181.03	168.19	174.20	166.31	154.78	114.52
Ministry of Labour and Social Welfare	90.90	108.07	100.34	88.02	83.64	6.99	5.66
Ministry of Social Development and Human Security	-	-	-	-	-	76.50	75.00
Office of Attorney General	2.32	2.32	2.73	2.53	0.95	0.45	0
National Police Bureau	-	-	-	5.46	5.48	5.94	6.34
<b>Total</b>	<b>1,986.02</b>	<b>1,481.54</b>	<b>1,516.24</b>	<b>1,442.07</b>	<b>1,443.84</b>	<b>1,060.73</b>	<b>1,003.24</b>

Sources: The Budget Act, Office of Prime Minister, various years; Fiscal Policy Office, Ministry of Finance; Comptroller General Department, Ministry Of Finance.

Figure 6.2 HIV/AIDS military programme spending and overall defence spending, 1992-2002



Source: Bureau of the Budget, *The Budget Act* (various year).

in 1998. Part of the reduction, however, was due to several hospital construction projects having been completed. Government funding for their construction therefore declined from 381.8 million baht in 1997 to 74.3 million baht in 1998.

The budgetary pressures on the 1999 fiscal year forced deeper cuts in the HIV/AIDS budget. Currency devaluation was raising the cost of the programmes. Prices of imported condoms rose, as did that of HIV testing kits, diagnostics and many of the drugs used to treat opportunistic infections.

#### Multi-sector approach suffers

Not surprisingly the implementation of the 1997–2001 HIV/AIDS Strategic Plan suffered greatly. Probably the heaviest blow was dealt to the broad-based and multicultural aspects of Thailand's response (see Table 6.1). Under pressure to fit spending within tighter budget lines, many ministries sacrificed their HIV/AIDS activities in order to protect their core functions. Fiscal austerity had caused dissonance between the HIV/AIDS budget and the Plan. For example, the Ministry of Education decided to drop its plans for life-skills education in schools.<sup>26</sup>

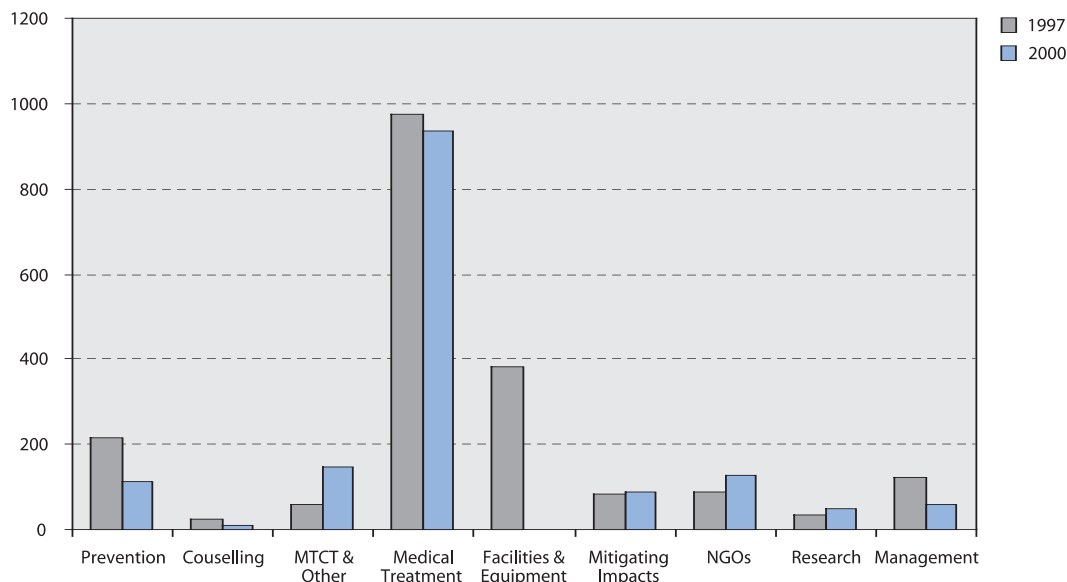
HIV/AIDS programme spending in the military also dissipated in 1998 (see Figure 6.2). With the baht

crashing in currency markets, the military drew on other budget lines to make up the shortfall, including the half a million baht reserved for HIV/AIDS related activities. Peculiarly, conditions attached to the World Bank and International Monetary Fund programme loans to Thailand, though, saved the programme from the chopping block.

There was an unexpected benefit in all this. Strapped for money, the military bowed to calls to change its costly and discriminatory HIV testing policy, which had been used to screen out HIV-positive conscripts from the military. Instead, it now urged conscripts, who suspected they might be experiencing any of 12 designated health conditions, to undergo a medical check-up before reporting for military service.

In other areas the extent of budget cuts were mixed. The appropriation for education for the 1998 fiscal year was 9 percent lower than in the budget submitted to Parliament a month before the crisis hit. Yet, funding for the prevention of mother-to-child HIV transmission actually increased in 1997–2001. Financing of treatment and care remained roughly steady, although fewer drug supplies were imported due to the weaker currency.<sup>27</sup> Grants for NGOs and funding for the blood safety programme and the breast milk replacement programme were also protected.

Figure 6.3 Details of HIV/AIDS budgets, 1997 and 2000



Sources: The Bureau of the Budget, *The Budget Act* (various years); Ministry of Public Health; and, NESDB

**Prevention cut**

Domestic HIV/AIDS funding in 2000 was approximately 1.519 billion baht (the equivalent of 24 baht or 63 US cents per capita) – about one quarter less than in 1997. Larger parts of the AIDS budget were now allocated to treatment and care (including antiretroviral and opportunistic infection drugs for clinical trials, and HIV testing and counselling). Prevention was slipping down the ladder of priorities, with prevention programmes receiving just 8 percent of the AIDS budget. By 2001, funding of prevention stood at less than half the 1997 levels. Much of that decline was due to a deep cut in funding for free condoms, as part of a shift towards a social marketing approach.

Only a small proportion was now allocated to providing young Thais with life-skills education, condom promotion, or public information and media campaigns about HIV/AIDS. The remainder of the budget was for NGO grants and community-level prevention and care work, and management and medical research. Funding for HIV/AIDS-related social and behavioural research amounted to a trickle.

In 2003, the national budget for AIDS received a welcomed boost from the Global Fund to fight AIDS, Tuberculosis and Malaria. It has approved substantial funding for HIV/AIDS, the largest portion for treatment and care, including antiretroviral drugs, treatment of sexually transmitted diseases, and prevention of mother-to-child transmission. Other areas where coverage had been inadequate are also receiving funds – including peer education and harm reduction programmes as well as efforts to reach migrant workers and men who have sex with men with information and services (see Table 6.2).

**Providing treatment and care**

Thailand's HIV/AIDS effort in the early 1990s was directed mostly at preventing the spread of the epidemic. Drug treatment for AIDS was still developing and did not yet rank high on the public agenda. A treatment and care policy was laid down in late 1991, and budget allocations for medical services were starting to increase around the same time. The Ministry of Public Health, for example, allocated a modest share of its HIV/AIDS budget for treating opportunistic infections in AIDS cases. Available

**Table 6.2 Global Fund to fight AIDS, Tuberculosis and Malaria grants to Thailand, as of April 2004**

Round	Requested	Approved	Disbursed	Principal Recipient	Activity Areas
1	USD 109.6m	USD 30.9m	USD 10.3m	Ministry of Public Health	Antiretroviral treatment, young people, migrants
2a	USD 81.3m	USD 14.1m	USD 2.1m	Ministry of Public Health	Prevention of mother-to-child HIV transmission, sexually transmitted diseases
2b		USD 6m	USD 1.6m	Raks Thai Foundation	Migrant workers
3	USD 1.4m	USD 911,000	0	Raks Thai Foundation	Injecting drug users

Source: Global Fund website <http://www.theglobalfund.org/search/portfolio.aspx?lang=en&countryID=THA>

treatment for AIDS-related illnesses (including opportunistic infections) though fell far short of the need. Costs of drugs were exorbitantly high and there were serious doubts about ability of the health system to sustain a major treatment programme.

The Thai Red Cross Society and other NGOs had been making important efforts since 1990 to support clinical care and trial activities, and to introduce voluntary counselling and testing services. The maturity of the epidemic and the existence of a sophisticated (and well-funded) teaching hospital at Chulalongkorn University made Thailand an ideal testing ground for clinical trials. While the prevention programme was attracting headlines in the mid-1990s, path-breaking clinical trial networks were being assembled, with strong international support.

Meanwhile, mono-antiretroviral therapy (AZT) had appeared on the scene. Available in industrialized countries since the late-1980s, it was adopted in Thailand in 1992. Treating HIV with only one anti-

retroviral though was not working as virus tended to mutate and become resistant to the medication. An official review of the drug treatment programme in 1995 declared the intervention both inefficient and ineffective.

In response, the Ministry of Public Health opted to invest more in enhancing clinical trial networks, partly by drawing more university and public hospitals into research and trial networks. A collaborative effort to set up a HIV clinical trial centre in Bangkok was mounted in 1996, under the stewardship of the Thai Red Cross Society and Chulalongkorn University's Faculty of Medicine. Dubbed "HIV-NAT" (the HIV Netherlands Australia Thailand Research Collaboration), the venture aimed to conduct HIV-related drug trials, as well as examine issues such as antiretroviral resistance, and to train health care workers in clinical skills. A valuable foundation not just for future treatment but also for expanding efforts to prevent mother-to-child transmission of HIV was laid.

### Box 6.1 Keeping the faith in AIDS NGOs

The NGOs in Thailand working on HIV/AIDS came of age during the 1990s. And it was a measure of the value attached to their work that funding to these organizations remained more or less steady after the economic crisis. The AIDS Division allocated 87.5 million baht to 465 projects of 373 organizations in 1999. Although that funding shrank to 60 million baht the following year, the shortfall was made up by the AIDS component of the World Bank-loan under its Social Investment Programme, which steered another 27 million baht to projects in six main NGOs.

While the general recognition of the value of AIDS NGOs' contributions has been high, the strategic direction of their activities within the overall HIV/AIDS effort has not yet been well monitored. As a result, there is a lack of clarity about the coverage and effectiveness of their activities. It is not clear the extent to which their work bolsters or duplicates that of public sector programmes. Nor is it clear what share of their efforts is devoted to prevention – an important area especially given the drop-off in government spending.

### Box 6.2 Generic AIDS drugs in Thailand

Generic drugs produced in Thailand, at cut rate prices, created the potential to significantly expand the Thai Government's treatment programme. Currently the Government Pharmaceutical Organisation (GPO) produces seven antiretroviral preparations, which are two (nevirapine) to 25 (stavudine) times cheaper than the cheapest brand equivalents. For example a fixed-dose combination (GPOvir) is available at USD 29 per month per patient compared to USD 490 per month for the imported drugs.

But several other important AIDS medicines are still unaffordable to most people who need them in Thailand. Generic production could help, but the Ministry of Public Health needs to set clear priorities, based on clinical need. For example, ganciclovir, a medicine used in the treatment of cytomegalovirus (CMV) retinitis, a blinding viral infection affecting many people living with HIV/AIDS is a monopoly product. The induction phase of treatment costs USD 2,500 and lasts three weeks. Many doctors in Thailand are at a loss when confronted with CMV infection. In theory, the drug could be produced generically by the Government Pharmaceutical Organisation.

However, the Thai Government has come under considerable external pressure not to produce certain generic drugs. For example, in 2000, it made moves to issue a compulsory license to allow generic production of didanosine (a drug that can block reproduction of HIV), but then retreated for fear of inviting trade reprisals.<sup>28</sup>

Some public health officials and activists now worry that bilateral trade negotiations between Thailand and the United States may result in restrictive Thai patent legislation that go beyond international patent rules – known as TRIPS – agreed at the World Trade Organization. Such "TRIPS-Plus measures" could limit the possibility of producing generic HIV drugs in Thailand allowed by public health safeguards agreed on at the Doha trade talks in 2001. This would result in much higher drug prices, and undermine current efforts to expand access to treatment in Thailand.

Source: *Medicins Sans Frontiers* (2003).

Dual therapy – a combination of two anti-retroviral drugs – was recommended as a first-line drug in Thailand in 1996 (several years after its adoption in industrialized countries). Clinical practice guidelines were updated, and operational research was stepped up as a possible prelude to integrating medical treatment into some of the hospital, community and home-based care activities that had sprung across the country. But again, the mutating nature of the virus resulted in disappointing results. At best, according to one study, dual therapy delayed death by about three years.<sup>29</sup>

#### Two breakthroughs arrive

Then came a double breakthrough that changed the playing field. First, the new 1997 Constitution guaranteed the right to health care for all Thais, paving the way for a universal health care system. Second, in the industrialized countries, the introduction of Highly Active Antiretroviral Therapy (HAART), combinations of three or more antiretrovirals, was having sensational results. Efficacy was high, and, in some countries, AIDS mortality trends would soon start reversing. These developments, one constitutional and one scientific, gave hope to the hundreds of thousands of people living with the virus Thailand. The pressure was now on the health system to deliver the goods.

The lag between the introduction of new antiretroviral drugs in industrialized countries and in Thailand was shortening. Already in 1997, triple-drug therapy featured in Thai clinical trials. A bustling exchange was now occurring internationally between scientific advances, research findings and skills-building with Thailand an important node in the network. It was thought that clinical trials in a developing country could provide a sound basis for standard antiretroviral regimens in other developing countries.

These new drugs, however, did not yield identical results in all settings. Researchers were realizing that differences in drug efficacy and drug resistance tended to vary according to the subtypes and strains of HIV, drug dosages, the nutritional status of patients and their abilities to adhere to treatment regimens. As well, one trial suggested that the recommended antiretroviral drug dosage in Thailand could be lower than in industrialized countries.

But the cost of the patented antiretroviral drugs that were now saving scores of lives in the industrialized world was simply out of reach for Thailand. In 2000, the estimated cost of drugs alone for a standard three-drug antiretroviral regimen in Thailand was 27,000 baht per month, or about 324,000 baht (USD 8,100) a year. Providing AIDS drugs to all in need would have cost over USD 8 billion.



### ...and a third breakthrough

A year into the new millennium came another breakthrough. Competition from cheaper generic producers and a surge of international activism started to force down prices for antiretroviral drugs. Activist groups in Thailand armed with the healthcare guarantees in the 1997 Constitution, pursued support for antiretroviral treatment (*see box 6.2*).

Another compelling factor was that the AIDS death toll was growing alarmingly with the estimated number of people dying of AIDS each year rising from just over 20,000 in 1994 to more than 50,000 by the turn of the century

### Obstacles remain

Lowering the price of drugs does not automatically mean that the drugs become available to those who need them. In order to be able to deliver the treatment, the health system needed to be overhauled. Access to health care was unequal, service standards uneven, and health insurance coverage low (in 1998, only about 20 percent of the population had health insurance).<sup>30</sup> The HIV/AIDS epidemic was highlighting some of these shortcomings, especially the need to revamp health care financing and to boost access to care.

In 2000, the Ministry of Public Health began expanding its efforts to provide triple-drug antiretroviral therapy through a newly created National Access to Anti-retroviral Programme.

By 2003, several of the barriers obstructing universal treatment access had been cleared. An estimated 95 percent of Thais now fell under health insurance coverage (up from 70 percent in 1998), thanks in large part to the Government's "30 Baht Treat All Diseases" scheme. Under that scheme, eligible persons who had lacked insurance are charged just 30 baht (less than USD 1.00) per episode of treatment at the Ministry of Public Health's service units. The Government's Access for All programme was also promising people living with HIV/AIDS (who are Thai citizens) free health care. Clinical practice guidelines were updated. Coffers were also being swelled by the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, which will finance antiretroviral treatment for 10,000 people in 2004.

Although antiretroviral treatment is not yet part of the benefit package under the 30 Baht scheme, the Government has been subsidizing such treatment

**Table 6.3 Prices of antiretroviral drugs purchased by the Ministry of Public Health, April 2002**

Antiretroviral Drug and poducer	Price (baht/Month)	Price (USD/Month)
AZT (GPO)	840	20
D4T (GPO)	210	5
3TC (GPO)	600	14.3
Nevirapine (GPO)	900	21.4
Efavirenz (MSD)	2,125	50.6
Indinavia (MSD)	1,716	40.9
Ritonavia (Abbot)	2,736	65.1
GPOvir (GPO)	1,200	28.6

Note: MSD is Merck Sharp & Dome

Source: AIDS Division, Department of Communicable Diseases, Ministry of Public Health.

for an increasing number of people living with HIV/AIDS through the National Access to Anti-retroviral Programme. Many patients, however, still end up having to pay for the drugs out of their own pockets. To remedy this, health care financing schemes are now required to tailor their benefit packages for people living with HIV/AIDS.

### Treatment programme takes off

As of 2003, the Ministry of Public Health has been officially committed to ensuring equal access and proper treatment for all people living with HIV/AIDS – including antiretroviral treatment for those who seek it, prevention of opportunistic infections, counselling, home and community-based care. The Ministry set an ambitious initial target of providing antiretrovira treatment for 50,000 people by the end of 2004, in addition to the 20,000 that already have access.

A number of important steps have now been taken towards the treatment target. The Ministry of Public Health has declared that all government hospital treatment regimens should include triple-drug therapy. Three schemes of treatment have been devised, including a new approach which seeks to link community care efforts with medical treatment activities, under the supervision of hospital authorities. A network of laboratory services has been established to support clinical practice in hospitals. Twenty-six laboratories have been equipped with flow cytometers (a device that measures CD4 cell

counts), with 12 university laboratories supplementing that network.

The information system is also being adapted to ensure that monitoring and evaluation of the programme feeds back into the treatment effort. The idea is that health care providers and programme administrators would be able to draw on the information and analysis generated in this process. This should sharpen the skills of health care and community workers involved in the programme. A new drug manufacturing plant has also been built to meet the increased demand for drugs. The drug supply chain is being strengthened, and a strict protocol has been drafted to govern drug distribution – from the Government Pharmaceutical Organization to regional depots and then to public hospitals.

Treatment programmes, however, tend to encounter a familiar hitch. Most people with HIV/AIDS discover their HIV status only when their health begins to fail, and many who could benefit from earlier detection are still not undergoing HIV tests. The fear of being stigmatized and ostracized is probably the main culprit in this, particularly in rural areas. One possible remedy could be a concerted public information campaign to alert the public of the benefits of early diagnosis and the availability of life-prolonging treatment therapy, in combination with a revived safe-sex education campaign.

It would be a formidable accomplishment if Thailand realizes its pledge of providing 50,000 people living

with HIV/AIDS with antiretroviral treatment by end of 2004. On current evidence, that target could be within reach.

### Voluntary Counselling and Testing

Effective voluntary counselling and testing is vital for identifying individuals who can benefit from early treatment, for promoting treatment adherence and bolstering prevention. Unfortunately, there are still difficulties on this front.

Voluntary counselling and testing services are available at approximately 1,000 hospitals and clinics across the country. However, the coverage is uneven. According to a survey conducted for UNAIDS in late 2003 people in Bangkok can easily access free or affordable voluntary counselling but less than 50 percent enjoy similar access in rural areas.<sup>31</sup> The survey could not ascertain how many people were actually using voluntary counselling and testing services, though it found that some 12,500 people had accessed services provided by the Thai Red Cross Society in the previous year. Spending on voluntary counselling and testing has increased markedly in 2003 but it accounts for only a fraction (about 2 percent) of total HIV/AIDS expenditure (see Figure 6.4).

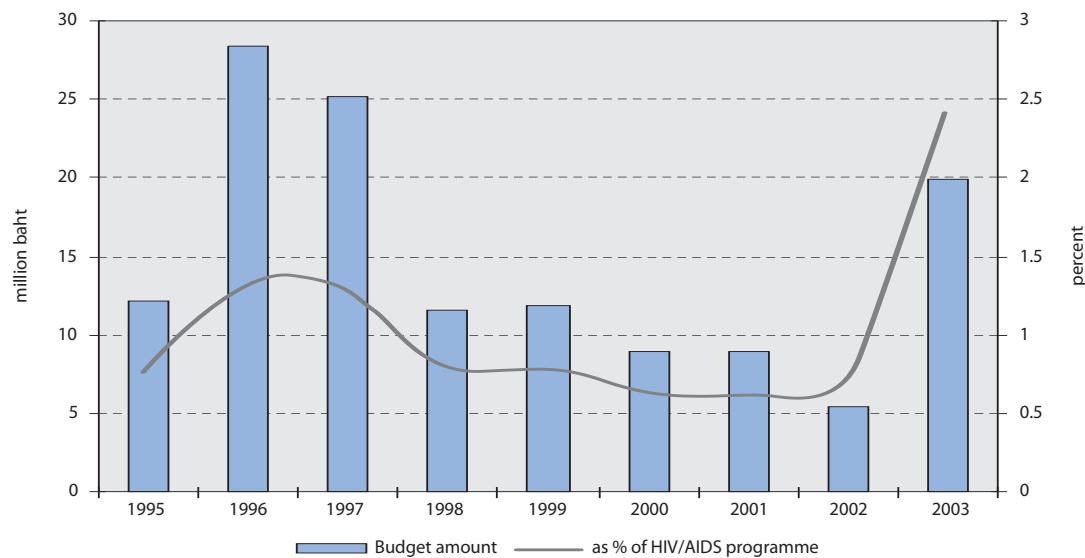
Concerns have been raised about the counselling and testing components. A review by the World Bank in 2000 concluded that these components were under-utilized and raised questions about the overall quality of counselling services. An evaluation of activities

### Box 6.3 Home- and community-based care

The earliest home and community based care pilot activities were organized in the upper northern provinces of Thailand including Chiang Mai, Lamphun, Chiang Rai and Phayao. Many of them were instigated by NGOs during the mid-1990s. For example, the 1993 CARE International 'Living with AIDS project' aimed to extend HIV/AIDS care and counselling to communities and used a network of village volunteers and health personnel in these provinces. Buddhist monks and Christian clergy also run several hospice programmes. Projects like the Chiang Mai-based Sanghametta Project train monks in caring for terminally ill patients with AIDS, an approach that also helps erode some of the stigma that about to the disease.

Even though home and community based care has been included in the National AIDS Plan there are qualitative differences. In the upper North, visiting nurse services are believed to reach many of those in need in some districts. Such services, need to be strengthened in rural areas, the South, the Northeast and Bangkok.

The demand for community based care will continue to grow. Improved medical treatment – including antiretroviral therapies and better handling of opportunistic infections will somewhat reduce the burden on communities. Nonetheless, AIDS remains a fatal disease, and the demands of care and support will continue to accumulate. It is vital that affected households and communities, particularly those left on the sidelines of Thailand's economic boom, receive additional and sustained support.

**Figure 6.4 Budget allocations for voluntary counselling and testing, 1995-2003**

Source: Bureau of the Budget.

for preventing mother-to-child HIV transmission also found that the quality of voluntary counselling and testing services varies across the country.

While some hospitals can and do provide systematic and appropriate services (including pre- and post-test counselling), other sites are struggling to do so. Excessive workloads, burnout of staff and inadequate counselling skills are all factors. Of particular worry is the reported lack of privacy and confidentiality for patients. If left unchecked, this fundamentally compromises the benefits of a treatment programme for people living with HIV/AIDS.

### Preventing mother-to-child HIV transmission

Early efforts to limit mother-to-child transmission centred on providing family education and pre-marital counselling. Young couples in particular were urged to undergo HIV testing before having children. In 1990-1991, a number of general hospitals integrated HIV screening into the regular services provided at antenatal clinics. Soon, screening for HIV was introduced in some community hospitals. One was the infant feeding programme where formula was distributed to lactating mothers who met mean-tested criteria. However, bottle-feeding indirectly hinted at the HIV status of the mother and met reluctance from some mothers.

As the decade progressed, a larger share of new HIV infections began occurring among women. Consequently, mother-to-child HIV transmission also increased. A public policy on AZT (zidovudine) provision was still absent, mainly because of high drug costs and technical capacity constraints. A breakthrough soon followed. A trial to examine the effectiveness of short-course AZT for preventing mother-to-child transmission brought encouraging findings: AZT could cut the odds of mother-to-child transmission by up to 50 percent. Several pilot programmes were soon set up, and they yielded promising results.

Two regional pilot programmes using short-course AZT were implemented – the first in northern Thailand in 1997, followed by a two-year programme targeting seven northeastern provinces in 1998. These programmes strengthened technical capacity and confirmed that a national version of the programme was feasible, particularly in a country with strong healthcare infrastructure. Doctors were now demanding that the Government support a country-wide programme as a routine part of antenatal care. Meanwhile, the Government Pharmaceutical Organization began producing some versions of AZT at lower cost – laying the foundations for a more extensive national programme (it could not yet, however, produce all forms of AZT used to prevent mother-to-child HIV transmission). Thus, despite the

**Table 6.4 Programmes to prevent mother-to-child transmission of HIV, 1990-2002**

Year	Interventions
1990/1991	Routine screening for HIV infection occurs in some large hospitals.
1992	Anonymous voluntary counselling and testing is provided at some sites.
1993	Bottle feeding is introduced for lactating, HIV-positive mothers, and infant formula is provided to low-income mothers.
1995-1998	The high cost of AZT (zidovudine), resource constraints and limited technical capacity block a clear policy on AZT provision. But the first trial of short-course AZT (in Bangkok) confirms the effectiveness of the drug.
1996-1999	The Thai Red Cross Society launched a public donation campaign, raising funds to help provide AZT to low-income pregnant women who are HIV-positive.
1997	The Ministry of Public Health conducts operational research in upper northern provinces, using short-course AZT.
1998-2000	The Ministry of Public Health mounts a second pilot project in seven northeastern provinces. Promising results lead to the gradual introduction of a national programme, based on AZT provision. The Government Pharmaceutical Organization begins producing a generic version of AZT.
2002	The Government guarantees universal access to services for preventing mother-to-child transmission, and integrates the intervention into the new universal health coverage scheme (the 30 Baht Treat All scheme).

Source: Kanshana & Simonds (2002).

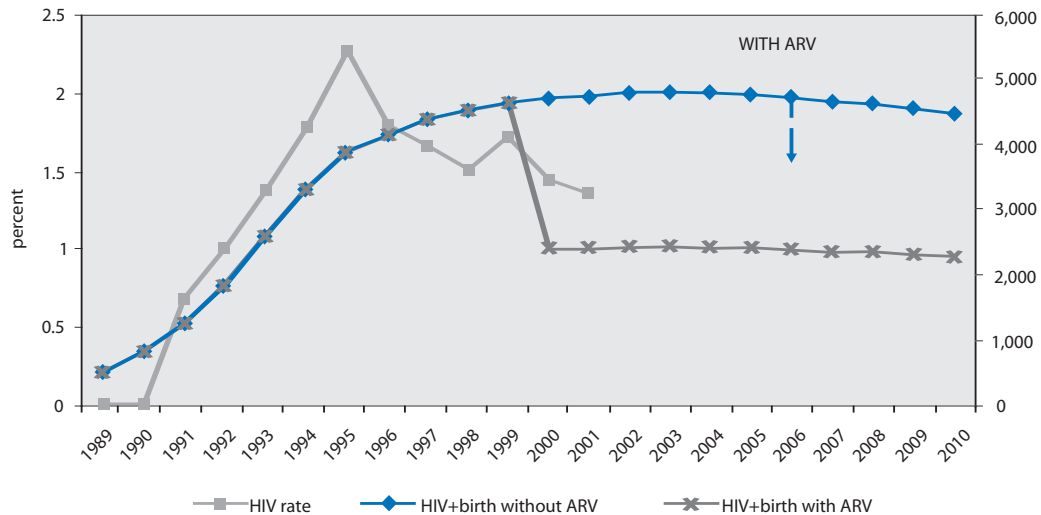
#### **Box 6.4 The Wednesday Friends Club**

The Wednesday Friends Club was founded in 1990 for the Thai Red Cross HIV-infected patients. The idea was inspired by Chulalongkorn Hospital's HIV-infected and AIDS patients' tradition of gathering every Tuesday morning with social workers and hospital nurses for their regular examination at the Immunization Clinic. Before and after the examination, patients would mingle, console one another and share news of recent developments in AIDS treatment they had heard or read about. A network of support and knowledge emerged, which the Thai Red Cross supported by training individuals in one-on-one and group counselling techniques.

After their regular meetings at the clinic, people often arranged to meet again on the third Wednesday of the month. Thus, the "Wednesday Friends Club" was born. The club provides a variety services free of charge to members including meditation, massages for relaxation, hair styling, classes about HIV/AIDS, and field trips for education and relaxation. The club also dispatches members to give talks to raise public awareness about the epidemic. Each year, on 1 December, the Club and the Thai Red Cross co-host an annual event called "Tien Song Jai" to promote awareness and knowledge among the public, and reduce misconceptions and stigma.

Source: Thai Red Cross Society [http://www.redcross.or.th/english/serve/medical\\_wed.php4](http://www.redcross.or.th/english/serve/medical_wed.php4)

**Figure 6.5 HIV prevalence rates among pregnant women and projected number of HIV-positive births with and without antiretroviral drugs, 1989-2010**



Source: Rhucharoenpompanich (2001)

economic crisis, Government budget support for the programme tripled in 1998-1999, and the number of women receiving AZT increased by a similar margin.

It was not all smooth sailing. Discrepancies in clinical practice were still being observed prior to extending the programme across the entire country. For example, in some hospitals confidentiality was being compromised by the lack of private spaces for counselling and by symbols added to mothers' medical cards (which indicated their HIV status). Not all pregnant women were also able to access antenatal care facilities. One review in 2000-2001, found that 12 percent of HIV-positive women giving birth did not have antenatal care.

In 2000, the Ministry of Public Health issued clinical guidelines setting out standard practice for preventing mother-to-child HIV transmission, developed a national policy and launched a national programme based on that policy. By now, AZT was being used

in most hospitals in the country. A review of the first year of the programme showed high uptake, and an increasing number of newborns were receiving prophylactic antiretrovirals.

Without such efforts it has been estimated that almost 5,000 children each year would have been born HIV-positive by 2003. The national programme is believed to be reducing that number by up to 50 percent (as Figure 6.5 illustrates).

Thailand's programme for preventing mother-to-child HIV transmission has become regarded as a model for similar efforts in developing countries. The approach taken was urgent but systematic, enabling research findings and pilot programme experiences to be translated quite quickly into a national programme. As with the general HIV/AIDS programme, Thailand also enjoyed specific advantages including strong antenatal care infrastructure and domestic generic production of antiretrovirals that are not present yet in all other countries.



---

# The Goalposts Move: A Changing Epidemic (2004-)



Thailand's dramatic success in reversing the spread of the epidemic was mostly due to the targeting of HIV transmission between sex workers and their clients by promoting condom use and discouraging men from buying sex. Limiting HIV transmission in sex work and enabling women in general to protect themselves against infection must continue as one of the core objectives of Thailand's programme. Many young people are still being drawn into the trade, whether as workers or clients, and the shift toward more clandestine, "indirect" sex work could facilitate new surges of HIV transmission.

But Thailand's HIV/AIDS epidemic is changing. Over time the epidemic has matured and the spread of HIV is now more heterogeneous than a decade ago. The tightly focused strategy of the early 1990s is no longer appropriate when HIV is spreading through numerous vulnerable groups, and is now threatening young people in general.

## The epidemic evolves

Whereas commercial sex largely steered the course of the Thai epidemic in the early 1990s (an estimated 85 percent of new infections in 1990 were between sex workers and clients), other modes of transmission have since come to prominence. HIV prevalence is unacceptably high in several groups including injecting drug users (IDUs), men who have sex with men, mobile populations, and among seafarers. Also, surprisingly high levels of sexually transmitted HIV infections have been detected among young people who regularly consume alcohol and/or use non-injecting drugs.

Half of new infections are occurring between men and their spouses or girlfriends. HIV-infection levels among pregnant women also remain high in some parts of the country, an indication of the continuing spread of HIV among the general population. There is

a manifest need to reinvigorate, adapt and extend prevention efforts to all sections of the population at risk of HIV infection.

## Facing new realities

### Young People

The fall in HIV/AIDS prevalence rates among young male army recruits suggested that the message was working and that safe sex became the norm – particularly among young people. Yet, new information is now suggesting that only a small proportion of young people are consistently using condoms in casual sex. There is the mistaken belief that they face no risk of infection. And, while there has been a general decline in commercial sex patronage by young men, this has been accompanied by an increase in extramarital and casual sex. This creates a new set of problems and issues.

In a recent study in Chiang Rai province only a small proportion (7 percent) of male students, 15-21 years old, said they had ever bought sex. At the same time almost half of all the students (both male and female) claimed they were sexually active. A behaviour surveillance survey also showed a rise in proportion of male students who are sexually active alongside consistently low rates of condom use (*see Figures 7.2 and 7.3*). Young Thai women also appear more likely to engage in extramarital sexual relationships than earlier generations.

Research also suggests that a majority of students know the main modes of HIV transmission – a vindication of those public education campaigns that remain in place. But there is a catch. Most of the sexually active students in the Chiang Rai study, for example, knew that unprotected sex carried a high risk of infection, yet felt confident they were not at risk of infection. Less than one third were

**Box 7.1 A little knowledge can be dangerous**

HIV/AIDS information and education campaigns aimed at the public are no longer as commonplace as they were in the first half of the 1990s. However, knowledge of HIV still appears to be high. A survey conducted by the National Statistics Office in 2001 found that some 98 percent of respondents knew HIV could be transmitted sexually and more than 80 percent knew the virus could be acquired by sharing needles (*see Table 7.1*).

But there was bad news buried in the details. Almost 20 percent of the respondents thought they could become infected if they hugged or kissed a person with HIV. Among younger people such views are even more widespread. These misconceptions are almost certainly adding to the fear, stigma and discrimination that still swirl around the epidemic.

**Table 7.1 Knowledge about HIV transmission, 2001**

Perceived risk behaviour	Believes it can transmit HIV (%)	Believes it cannot transmit HIV (%)	Not sure (%)	No response (%)
Having unprotected sex with an HIV-positive spouse or partner (no condom)	93.7	3.2	3.0	0.1
Having unprotected sex with a commercial sex worker (no condom)	93.5	1.4	5.0	0.1
Having unprotected casual sex (no condom)	82.6	4.6	12.7	0.1
Sharing needles with injecting drug users	84.9	4.7	10.2	0.2
Tattoo, ear-piercing using non-pasteurized equipment	57.2	13.5	29.1	0.2
Receiving blood transfusion	29.5	32.4	37.9	0.2
Receiving dental work along with a person with HIV	43.7	20.7	35.4	0.2
Hugging and kissing a person with HIV	19.5	47.5	32.8	0.2
Being bitten by a mosquito or animal that has bitten a person with HIV	17.8	57.0	24.9	0.3
Sharing eating utensils with a person with HIV	11.4	54.7	33.7	0.2
Having a meal with a person with HIV	7.5	68.0	24.3	0.2
Using the same swimming pool as a person with HIV	7.0	55.9	36.9	0.2
Living with a person with HIV	6.6	68.0	25.2	0.2

Source: National Statistical Office, Public Opinion Survey on Public Relation about HIV/AIDS, 2001.

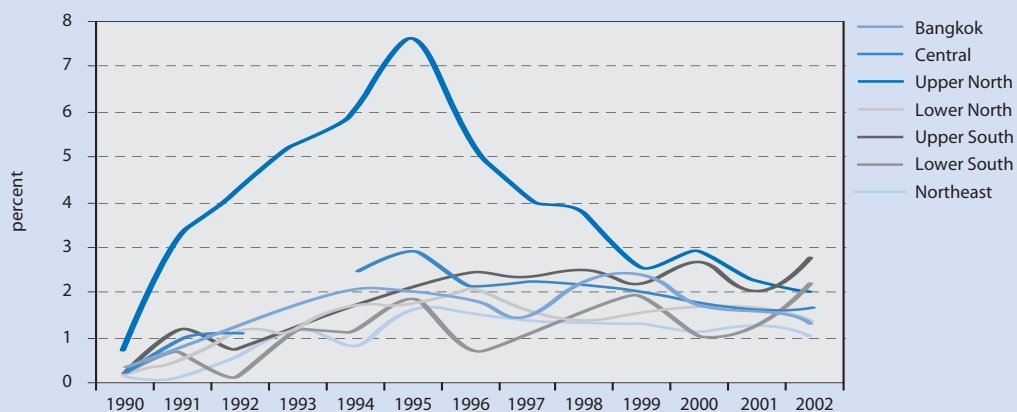


### Box 7.2 A surprise in the South

Falling trends in HIV prevalence among pregnant women attending antenatal clinics confirm the success with which the epidemic as a whole has been held in check over the past several years. Nationally, just over 1.4 percent of pregnant women in Thailand were living with HIV in 2002. That prevalence rate had declined slightly from the previous year – in line with an overall downward trend.

The South is the only region where HIV prevalence among pregnant women has been increasing recently (see Figure 7.1). In the Lower South, HIV prevalence among pregnant women has doubled between 2000 and 2002, from 1 to 2 percent. HIV-infection levels of at least 2 percent were recorded in eight provinces in 2002 (including Satun in the lower South) and ranged well past the 3.5 percent mark in Nakhon Sri Thammarat and Phuket provinces.

Figure 7.1 HIV prevalence among pregnant women attending antenatal care clinics, 1990-2002



Source: Bureau of Epidemiology, Ministry of Public Health.

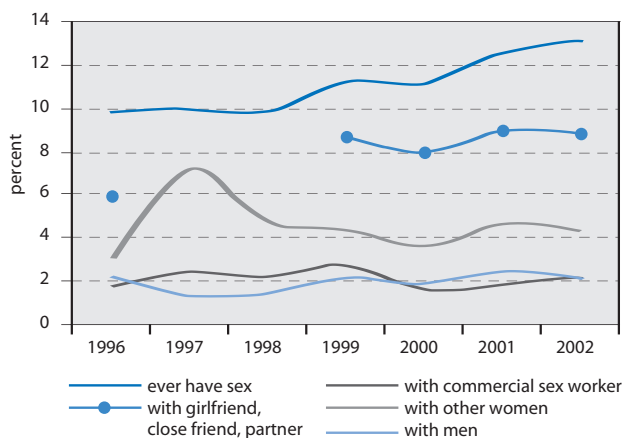
### Box 7.3 New signs of worrying behaviour

Some recent information on sexual behaviour can be found in Phayao province in the upper North of Thailand. Phayao experienced high levels of HIV prevalence in the 1990s. The information system now tracks the sexual behaviour of army conscripts, secondary school students, industrial workers and pregnant women. The survey of army conscripts is of particular interest.

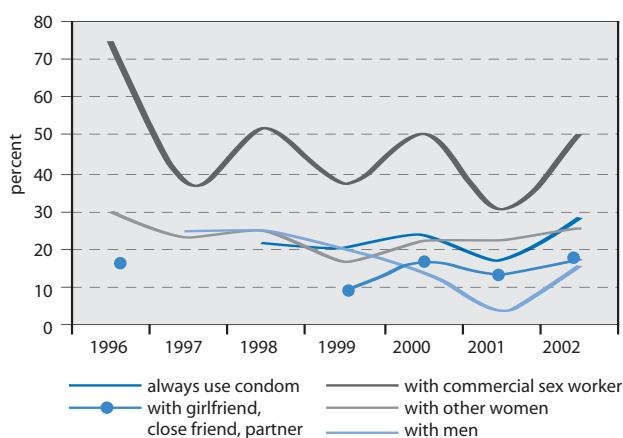
Married conscripts were more likely than their single counterparts to have paid for sex. Contrary to the general trend, more married conscripts were visiting commercial sex workers than two years earlier (32 percent up from 18 percent) and about half of those who did also had girlfriends.

Condom use ranged from seldom to hardly ever, depending on the partner. Forty percent of married conscripts who bought sex were not using condoms with sex workers, 80 percent shunned condoms when sleeping with girlfriends, and upward of 95 percent did the same when having sex with their wives. By comparison single conscripts were more careful, with only 20 percent of them avoiding the use of condoms when visiting sex workers – although at least two thirds did not consistently use condoms with girlfriends.

**Figure 7.2 Percentage of male upper secondary school students who reported being sexually active, 1996-2002**



**Figure 7.3 Percentage of sexually active male upper secondary school students reporting condom use, 1996-2002**



Source: Office of Epidemiology, Department of Disease Control, Ministry of Public Health, March 2003.

consistently using condoms with casual partners, and less than one in ten used condoms with steady partners.<sup>32</sup> Also striking was the fact that many of the students were sexually active by the time they left high school – median age at first sex was 17 years for males and 18 for females. Other research in the same province has come up with similar findings.

Knowledge about HIV/AIDS among young people actually turns out to be confused. In several studies in northern Thailand, a majority of people quizzed about HIV/AIDS thought the virus could be acquired through casual contact such as kissing on the cheek, drinking from the same glass or even working near a person living with HIV/AIDS. Research among young female students (15-21 years of age) in Chiang Rai found more than 80 percent of them held such misconceptions.

Expanding and adapting the HIV/AIDS programme to encompass and reach young people – particularly school-age youth – is a clear priority. Stepped up prevention activities and sexual health education are urgently needed among school-age youth, and should reach them before they become sexually active. These efforts should aim to increase effective use of condoms, reduce the number of sexual partners, and improve knowledge of sexually-transmitted diseases.<sup>33</sup> Making condoms more accessible to young people, including those of school age, is a necessity.

There are efforts to integrate HIV/AIDS and sexual health information, in addition to some life skills training, into school curricula. The latter can be particularly valuable, since it equips young people with analytical and problem-solving skills. For more than a decade now, schools have been expected to provide students with information about HIV/AIDS in the classroom. For example, the Department of Non-formal Education has integrated HIV/AIDS information into its curriculum and provides life skills to out-of school youth. The Department of Curriculum and Instruction Development, Ministry of Education, has also integrated life skills development into the curriculum.

Yet, it is unknown how many education institutions have introduced life skills programming and whether those that did, have sustained the effort. As a consequence, there has been little research to assess the effectiveness of life skills training in achieving behavioural change. Many school administrators and teachers seem less than enthusiastic about incorporating life skills into their work, possibly due to discomfort or a lack of understanding of the concept.

Protecting young people against HIV also requires addressing social and socio-economic realities. At the moment there is a strong correlation between drug and alcohol use, and being sexually active – a combination that can increase the risk of HIV infection (see box 7.7 and table 7.2).

### Box 7.4 Sticking to the path of Buddhism

The Ministry of Education, along with religious organizations, has been fine-tuning life skills among school children with its “Vi-Thee-Bhud” school project (literally, a school that follows the “path of Buddhism”). Schools enrolled in this project modify and simplify Buddhist wisdoms in order to equip students with the skills of rational thinking, problem solving and decision-making. About 2,000 schools have joined the programme and are busy applying the Vi-Thee-Bhud school approach.

A 1999 survey in Songkhla province (in the South), for instance, found that some two thirds of sexually active secondary school students frequently used alcohol (compared to less than one third of the students who were not sexually active). A survey in 2001 in Phayao province (in the North) revealed the same pattern, along with high levels of yabaa (a popular methamphetamine-based drug) use. More than one quarter of sexually active students were using the drug. Yabaa use does not in itself carry risk of HIV infection, but facilitates more sexual risk-taking.

### Box 7.5 Strengthening school programmes

Research in Thailand and other countries point to several areas where school-based prevention programmes can boost the defence of young people against HIV/AIDS, including:

- *Programmers and teachers need to be aware that some students have sex at early ages.* Teachers need to be prepared to offer immediate information and support in adopting safe behaviours. Programme designers and teachers also need to take into account the possibility that young people – both females and males – are sometimes victims of coerced sex, even at very young ages. Referral systems to counsellors and social workers should be provided to these youths.
- *Strategies for negotiating or refusing sex should take into account the intermittent nature of adolescent sex.* Classroom exercises can identify the situations in which youths have sex, and enable discussion about ways for dealing with sexual encounters.
- *Students may feel peer pressure based on their misperceptions about the behaviour of others.* An examination of assumptions about sex – including norms about masculinity, femininity, and self-esteem – can help students decide for themselves when to have sex. Specific exercises and activities can help students identify and resist peer pressure.
- *Teachers and curriculum planners should bear in mind that students have uneven knowledge about HIV and prevention.* Teachers often mistakenly say that students already know everything about HIV and sex, and many students think so, too. More often than not, that assumption is mistaken.
- *Programmes need to teach students to accurately assess their own personal risk of HIV infection.* Research shows that most sexually active youth do not believe they are at any risk of HIV infection. Teachers and counsellors need to teach students to assess their own risk by being able to identify the behaviours or circumstances that put them at risk.
- *Programmes need to address stigma and discrimination against people living with HIV/AIDS.* Interactive teaching methods can help students explore the situations in which they feel uneasy and unsure about interacting with people who have HIV.
- *Programmes need to address condom use.* To be able to practise safe sex, young people must feel confident about how to use a condom correctly. Because this is a difficult subject to address in a classroom, teachers need special preparation to help them discuss condom use and other intimate matters with students.

Source: Adapted from Horizons et al. (2001), *Reducing HIV Infection Among Youth: What Can Schools Do?* Baseline data from Mexico, South Africa, and Thailand, available at <http://www.popcouncil.org/pdfs/horizons/schoolsbsln.pdf>.

### Box 7.6 Learning how to beat HIV/AIDS

The education sector can make a difference on several fronts. First, education provides young people with the knowledge and skills that can help to protect them from HIV infection. Second, schools can encourage young people to show compassion towards people living with HIV/AIDS. Finally, the education system can provide information on care and treatment including how to access testing and counselling facilities, how to seek appropriate medical advice and the importance of adhering to treatment requirements. Many of these opportunities are not yet realized. HIV prevention is still not part of mainstream curricula. Neither are courses on attitudes, values and life skills – which are pivotal for effective HIV prevention.

Several United Nations agencies, as well as NGOs, now provide technical and financial support to the Ministry of Education. HIV/AIDS teaching materials have been developed in recent years. Nonetheless improving the contribution of the Ministry of Education to the HIV/AIDS response is a priority. There is also a risk that pilot projects or novel activities will remain sporadic rather than as a part of an overall strategic plan on HIV/AIDS in the education sector. Moves toward developing such a plan are now underway including a review of curricula and teaching-training materials.

*Contribution from UNESCO*

### Box 7.7 Risky highs

Surprisingly high levels of HIV infection have been found among people who use drugs but do not inject them. Research at the Thanyarak Institute on Drug Abuse has shown that HIV prevalence among users of amphetamine-type stimulants (such as yabaa) rose from 1.5 percent in 1995 to as high as 7.6 percent in 1998 before dropping again. Among marijuana users receiving treatment at the Institute, prevalence hovered around 10 percent, and among alcohol users it ranged from 5 percent to 7 percent over the period 1996-2001 (see Table 7.2). Unsafe sexual behaviour when under the influence of drugs or alcohol was the most probable cause of infection.

Table 7.2 HIV prevalence among people who are drug or alcohol dependent

Substance used	HIV prevalence %									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Marijuana	-	2.6	4.5	6.3	9.5	10.4	10.0	7.7	3.1	9.5
Alcoholic beverage	2.2	4.0	2.1	2.3	5.0	6.1	7.2	5.8	2.3	5.7
Inhalant	0	7	4	2.5	5.3	7.8	14.6	8.0	4.8	6.5
Amphetamine-type stimulants	0	0	0	1.5	3.4	5.5	7.6	4.9	3.6	3.6

Source: Thanyarak Institute on Drug Abuse, Ministry of Public Health.

**Box 7.8 Women at risk!**

Almost one third of adults living with HIV/AIDS in Thailand are women, and a large proportion of them are women who would appear to be at very low risk of HIV infection. As many as half of new adult infections in Thailand are now occurring among women, most of whom are infected by their husbands or boyfriends.

Violence is one of many factors that put women at greater risk of HIV infection. A study in 2000 found that more than 40 percent of Thai women surveyed had been physically and/or sexually abused by a partner.<sup>34</sup> Condom use is almost non-existent in such incidents, and the threat of violence often prevents women from negotiating safe sex. Another risk factor is the customary male expectation that women remain sexually “innocent” and, therefore, also “ignorant” of sexual knowledge (which, by implication, includes knowledge about preventing HIV infection). Unless women and girls are empowered enough to gain and use reproductive and sexual health knowledge, their risks of becoming infected will not diminish.

Women also face other challenges posed by HIV/AIDS. When infected, they can encounter severe stigma and discrimination. The burdens of care at both household and community levels are usually borne by women, as the public infrastructure to care for people living with HIV/AIDS is still considered a luxury in most part of the country. These and the other risks and burdens HIV/AIDS imposes on women and girls need to be reflected in more gender-focused policies for tackling the epidemic.

*Contribution from UNIFEM*

**Box 7.9 Older, wiser – and safer?**

Are older sex workers more likely to practice safe sex? One might expect so, given that they would probably have been exposed to the intensive HIV/AIDS education blitzes and interventions during the heydays of the 100% Condom Programme. Yet, one new study, carried out among female sex workers in four cities (including Bangkok and Chiang Mai), suggests otherwise.

It is generally accepted that males tend to favour younger women for sexual relations, not least so in the commercial sex trade. Not surprisingly, this particular study found that the older sex workers were entertaining fewer clients per day than their younger competitors. Therefore, while older sex workers might know more about HIV/AIDS, they are at a disadvantage when competing with younger counterparts. In a bid to lure wavering clients they may be more inclined to forego condoms. Conversely, younger and probably more sought-after sex workers have a stronger negotiating position when discussing condom use.

Source: Buckingham & Meister (2003).

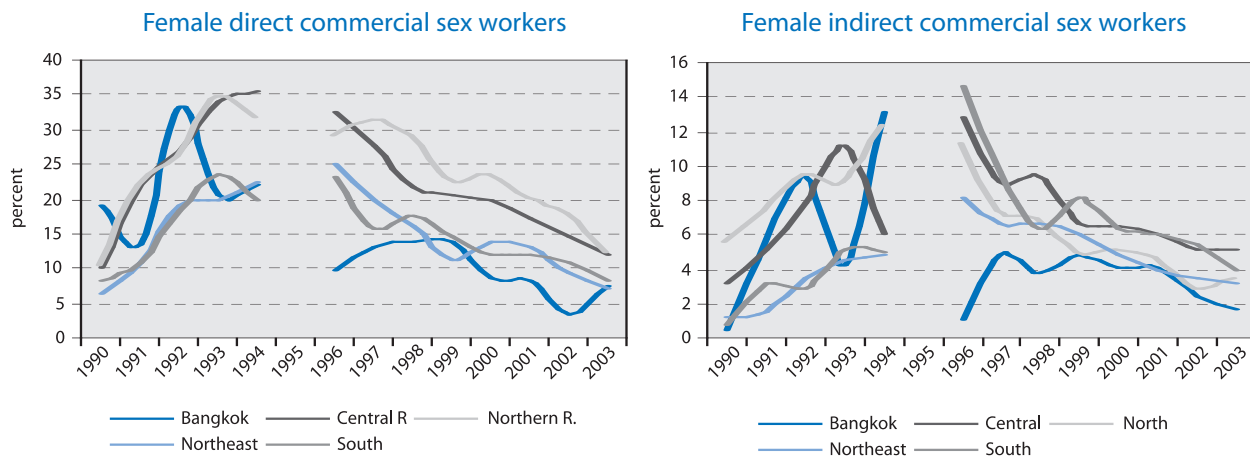
It is estimated that less than 5 percent of young people are being reached by adequate prevention services, while public awareness campaigns have all but faded from view. Revitalized generic public information and education campaigns are likely to be inadequate. Required now are programmes that match the diversity of risk behaviour among groups of young people and in different areas of the country. Greater investment in social research will help to improve the understanding of complex social dynamics between youth, drugs and HIV in Thailand.

**Sex Work**

Given that infection levels are much higher among sex workers than in the general population and amid signs that consistent condom use could be faltering in some areas, HIV transmission through sex work remains a substantial threat in Thailand.

Many sex workers eventually become infected with HIV, though prevalence rates among commercial sex workers did fall to 7-12 percent in 2002. However, the national trend can hide significant regional disparities (*see Figure 7.4*). In 2003, for example,

Figure 7.4 HIV prevalence among female direct and indirect commercial sex workers, 1990–2003

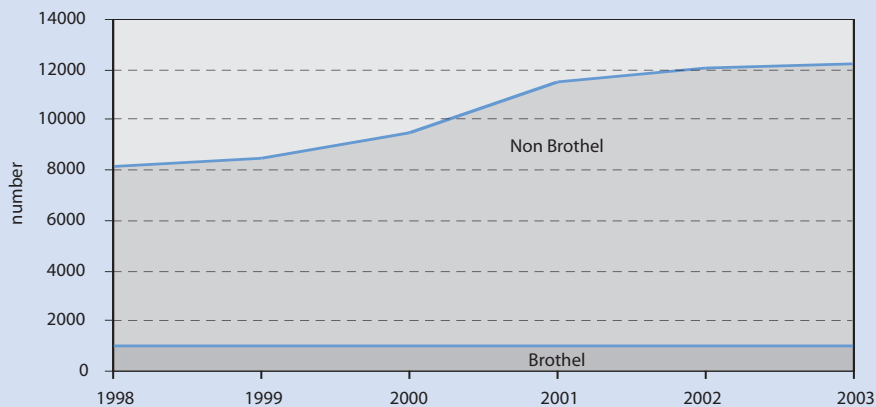


Source: Bureau of Epidemiology, Ministry of Public Health.

**Box 7.10 How many sex workers?**

How many sex workers are there? There is no definitive answer but estimates indicate there are at least 100,000 and possibly more than 200,000 sex workers in Thailand. There is evidence that the number might be increasing. A survey over the period 1998-2003 recorded a 50 percent increase in the total number of sex service establishments. The number rose from 8,000 in 1998 to more than 12,200 in 2003. The increase was entirely due to the huge increase in indirect sex service establishments.

Figure 7.5 Number of sex service establishments, 1998-2003



Source: Survey conducted by the Sexual Transmitted Disease Division, Department of Communicable Diseases, Ministry of Public Health.

brothel-based sex workers in the northern and central regions were still more likely to be HIV- infected compared to those working in Bangkok or the northeastern and southern regions. Among indirect sex workers, HIV prevalence is still highest in the Central and South regions.

Officially, the 100% Condom Programme remains in place, though in recent years it appears to have been applied with less vigour than a decade ago. It is also uncertain what impact it has today. A study in Bangkok found that 89 percent of sex workers said they were using condoms – slightly down from the exceptional 96 percent who made the same claim in a 2000 study. Other research also suggests a worsening situation. In a smaller study in four cities (including Bangkok and Chiang Mai), sex workers have reported using condoms only 51 percent of the time, and mostly with foreigners.<sup>35</sup> Only about one in four Thai clients was likely to use a condom. This suggests that positive behavioural changes of the 1990s might be slipping. Given the high HIV-prevalence levels being found, the risks of transmission through sex work remains.

A shift has occurred in the sex trade itself – away from sex work based in brothels towards “indirect” and less easily regulated settings such as bars, clubs, restaurants and hotels. In addition, an increasing number of migrant women, many from Myanmar, are being drawn or forced into sex work. As a result,

there are doubts whether a programme that focuses on promoting condom use among “direct” commercial sex workers is adequate in these circumstances (see box 7.11).

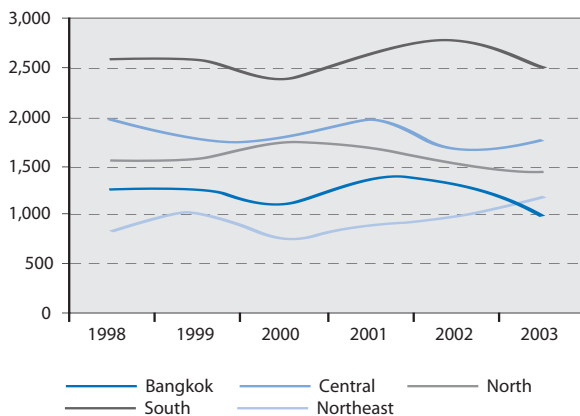
**Box 7.11 Indirect sex work : a moving target**

Unlike direct sex, work ‘indirect’ sex work is a moving target. The work is solicited in bars or restaurants and often off-premises, with the women operating on the fringes of – or outside – a potentially regulated environment. Bar owners and managers usually deny that their businesses are outlets for commercial sex, and have proved reluctant to cooperate in sexually-transmitted disease and HIV/ AIDS activities. Often, the sex workers do not comply either, making it even harder to reach them with activities and services that have been tailored for sex workers.

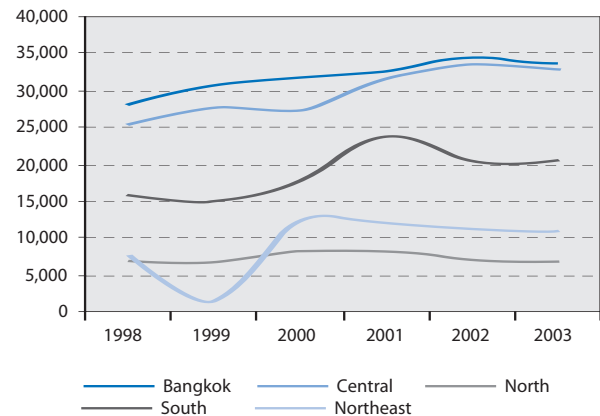
Current strategies still follow the regulatory approach of the 100% Condom Programme. Outreach approaches that tap the knowledge, networks and mutual trust of sex workers might be more suitable for the changing sex industry. It is estimated that no more than one in five sex workers benefit from peer outreach programmes.

Source: UNAIDS coverage survey, 2004.

**Figure 7.6 Number of female commercial sex workers in brothels (by region), 1998-2003**



**Figure 7.7 Number of female commercial sex workers in non-brothel sex service establishments (by region), 1998-2003**



Source: Survey conducted by the Sexual Transmitted Disease Division, Department of Communicable Diseases, Ministry of Public Health.

Reaching these “indirect” sex workers with effective prevention programmes is a challenge, not least because many of the owners and managers of the establishments they operate from are unwilling to admit that sex is traded on their premises. A recent study found 44 percent of such owners and managers denied sex was being sold, 50 percent of them had not introduced any measures for condom promotion, and about 30 percent did not facilitate sexually-transmitted disease check-ups and treatment for the sex workers.<sup>36</sup>

Sometimes overlooked is the fact that sex workers also have sex with non-commercial partners – spouses, friends and so on. In these encounters, condom use is less frequent. A 1997 evaluation of the 100% Condom Programme found that overall (in both commercial and non-commercial sex) only about 60 percent of sex workers were using condoms consistently with all partners, leaving substantial opportunities for HIV transmission.<sup>37</sup>

Similarly, men who frequent sex workers tend not to use condoms consistently when having sex with fiancées and girlfriends. While remarkably effective in reducing HIV transmission between sex workers and their clients, prevention efforts appear to have been much less effective in non-commercial sexual relationships.

The priority then is to extend existing, and implement new, programmes aimed at indirect sex work. The

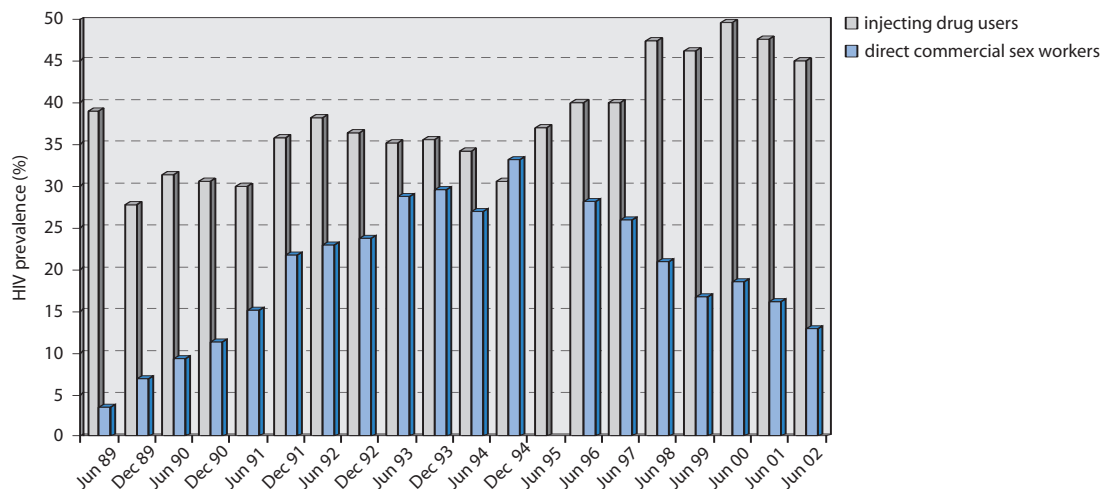
influx of immigrant women into the sex industry (many without official status) is also posing new challenges. Sex workers from neighbouring countries, some of whom have been smuggled to Thailand illegally, are at high risk of infection. Access to prevention is more difficult if they are threatened with deportation when they contact public services.

### Injecting Drug Users

About one-quarter of all new infections are occurring through unsafe injecting drug use. The proportion could rise as high as 40 percent in the next few years. Drug injectors (90 percent of whom are male) are also sexually active and, like many other men, some also buy sex. Unprotected sex between them and sex workers or other partners can add further impetus to the spread of HIV (see Figure 7.8).

Unsafe injecting drug use is one of the most efficient modes of HIV transmission, and infection rates among injecting drug users are extremely high, with mean HIV prevalence ranging as high as 51 percent in Bangkok and the Central region. In parts of the South, equally high prevalence has been found among users – not surprising when, according to one recent study, as many as half of the users there continue to share contaminated injecting equipment (without being aware of their HIV serostatus).<sup>38</sup> Yet, the pragmatic approach followed in preventing HIV transmission in commercial sex, which is also illegal,

**Figure 7.8 Comparing HIV prevalence between injecting drug users and direct commercial sex workers, 1989-2002**



Source: Office of Epidemiology, Department of Communicable Disease Control, Ministry of Public Health.



### Box 7.12 The Thai Drug User's Network

The Thai Drug Users' Network argues that the war on drugs campaign is misguided and could lead to an increased risk of HIV infection among drug users. They have urged the authorities to focus less on punitive action and more on ensuring that appropriate services such as harm reduction and needle exchange programmes reach drug users, most of whom are poorly informed and equipped to protect themselves against HIV/AIDS.

The Global Fund to Fight AIDS, TB, and Malaria in late 2003 awarded the Network a three-year grant of USD 1 million for a range of peer-driven activities, including training, education, prison work, HIV testing, and lobbying. The funds will also be used to establish two fixed locations for outreach and education, and to increase the capacity of health care providers, police, prison staff, and others to provide care to drug users.

has not been followed for injecting drug users, who remain highly stigmatized, and frequently incarcerated. Because many injecting drug users are also sexually active, high levels of HIV infection among them do not stay confined to this group. Among HIV-infected army conscripts with a history of injecting drug use, for example, more than 95 percent have reported being sexually active.<sup>39</sup> In the early phases of the epidemic, distinct HIV subtypes were being detected in infected commercial sex workers and injecting drug users – subtype E in the case of the former, and subtype B in the latter. Soon, though, HIV subtype E was appearing among injecting drug users. Here was evidence that the virus was being transmitted also between these two groups, and mainly from sex workers to injecting drug users. The phenomenon of “bridging” has been apparent since the 1990s in Thailand. HIV prevention efforts, therefore, need to address both the injecting and sexual risk behaviour of the users. A comprehensive approach is needed.

One early effort to tackle the problem was the decision to offer methadone maintenance and provide free bleach along with instructions on needle disinfection. This was implemented at drug treatment clinics in Bangkok and at Thanyarak Hospital in 1989. More than a decade later such services are still confined mainly to the capital. The main constraints appear to be the lack of resources and the shortage

of outreach programmes that can motivate users to start and stay with treatment programmes.

The Ministry of Public Health has attempted to implement reforms to narcotics regulations that could facilitate HIV prevention among these drug users. One successful step was the extension of methadone programmes from 45 days to 1-2 years. All hospitals are now required to provide drug detoxification services. Unfortunately, the Ministry of Public Health services lack solid footing in communities, which limits their usefulness for HIV prevention. In contrast, the Bangkok Metropolitan Authority linked its services to community based health centres, and has achieved more positive results with its integrated HIV preventive programme among drug users. The authority now runs a network of community health clinics that provide both rehabilitation and HIV prevention services for drug users.

Elsewhere, a smattering of projects – almost all run by NGOs – have been trying to educate and help injecting drug users avoid HIV infection. One example is a pilot needle and syringe project that started in the 1990s among the Akha people in the North. Other examples are the HIV/AIDS Prevention and Care for Hill Tribes of Northern Thailand and the Mae Chan Harm Reduction projects. The latter providing needle and syringe exchange services, as well as methadone treatment, in nine hill tribe villages in Chiang Rai province. The Asian Harm Reduction Network also continues to produce advocacy materials on HIV and drug use.

Generally, the Government has not been supportive of such projects. Prevention work among injecting drug users, therefore, remains inadequate with scant coverage.

The predominant approach has been to target the supply side. The punitive approach to drug use, along with mass media campaigns, has probably reinforced the status of drug users, particularly those who inject, as social outcasts.<sup>40</sup> The net effect has been to generate a climate of fear that could be driving injecting drug users deeper underground and undermining the potential of outreach projects and compromising the HIV/AIDS response.

Thailand has the opportunity to lead the rest of Asia by ensuring its HIV/AIDS prevention activities reach marginalized groups that are at high risk of HIV infection. There is strong evidence from three

continents (Canada in North America, Brazil in South America, and Australia in Asia and the Pacific) that harm reduction programmes can help reduce HIV spread and do not lead to an increase in drug use. The fact that injecting drug use is illegal should not stand in the way of such an approach. After all, commercial sex work was illegal when the 100% Condom Programme was launched (and remains so to this day). In that case, a pragmatic approach won the day – with spectacular results.

### Box 7.13 Another puzzle in the South

The sociology of injecting drug use in Thailand has seldom been explored. There are some patterns of injecting drug use behaviour but also some puzzling anomalies

An example can be found along Thailand's southern border with Malaysia. There, heroin use has been common for several decades. Thai heroin users, however, have shown a much greater propensity for injecting the narcotic. According to one study roughly 80 percent administered the drug in that way, compared to just 20 percent of their Malaysian counterparts.<sup>41</sup>

There are recent, promising signs that Thailand might seize this opportunity. The Minister of Public Health, for example, has reportedly declared some support for harm reduction activities. In circulation

are proposals that the National Working Group on Harm Reduction (which comprises key individuals and organizations, including government and UN agencies, as well as the Thai Drug Users Network) serve as a sub-committee on harm reduction within the National AIDS Committee. One option might be to draw the Office of Narcotics Control Bureau and other departments under the Ministry of Justice into Ministry of Public Health-led planning and implementation of harm reduction activities. These are welcome steps towards a more comprehensive approach.<sup>42</sup>

### Prisoners

HIV prevalence in prisons is likely to be considerably higher than in the wider population, mostly due to the fact that a large proportion of inmates belong to groups at high risk of HIV infections – especially injecting drug users. Indeed, studies in prisons elsewhere in the world have revealed very high HIV prevalence – 20 percent in some U.S. prisons and 14 percent in one Brazilian prison.<sup>43</sup>

In Thailand, a large proportion of prisoners had been convicted for violating the country's narcotic control laws especially with the recent war on drugs campaign. One recent estimate is that up to two thirds of the 220,000 inmates in Thai prisons have been convicted on drug-related charges.<sup>44</sup> Prisons enable previously unconnected injecting drug user networks to interact, allowing the virus to spread to groups of users with comparatively low HIV prevalence.

### Box 7.14 Drug use on the rise

Drug use has been on the increase in Thailand, more than doubling throughout the country in the latter half of the 1990s, with the most favoured drugs being amphetamine-type substances, marijuana and inhalants. Yabaa dominated the scene from the mid-1990s as the new drug of choice. Around the same time, following the surrender of the Burmese drug lord Khun Sa in 1996, the supply of heroin became choked, pushing up prices.

Heroin remains available in the hills of northern Thailand and in the South, where it is largely injected. Amphetamines, on the other hand, are very easy to obtain, relatively cheap and available throughout the country. Yabaa is generally taken orally or vapour inhaled. Reports of yabaa injecting are rare. The drug is used for a variety of purposes. While some people – especially those working long hours – value the heightened alertness and stamina the drug affords them, others use it for recreation, including in sexual contexts. Thus, there are concerns that high yabaa "use" could have a bearing on HIV transmission, because of increased sexual risk-taking.

The actual number of users who inject drugs is unknown. Data does point to a strong direct relationship between the chronic use of heroin and injecting behaviour. Estimates range from 100,000 to as many as 250,000 addicts. Studies show most of them are male (around 90 percent) and most aged between 20-24 years.<sup>45</sup> Recent studies also show ongoing demands on treatment services by relapsing heroin users.

Clear signs of HIV risk in Thai prisons date back to 1991, when the median infection rate among new male prisoners was found to be 12 percent in 20 provinces.<sup>46</sup> With the cancellation of compulsory HIV testing of prisoners in 2000 it has become much more difficult to track rates of infection. Current indirect indicators, such as the lower number of inmates classified as injecting heroin users, have been interpreted as signs that HIV risk in prison settings has diminished.

There are other indications that drug injection actually occurs in prisons. One recent study conducted among inmates in Bangkok's Klong Prem Central Prison found that 25 percent of the surveyed prisoners were HIV-positive.<sup>47</sup> Fully half the prisoners surveyed were regular injecting drug users, and 70 percent of those users had injected drugs while jailed. Almost all the users (95 percent) had shared injecting equipment at some point. And 95 percent of the inmates reported having had unprotected sex before they were jailed.

Unprotected sex also occurs in Thailand's prisons – as it does in prisons around the world. Some prison authorities provide access to condoms on request through prison health services, but say the uptake is low. They interpret the low demand for condoms as proof that sexual intercourse is rare among inmates. In addition, tattooing, piercing and “fang muk” (literally “inserting pearls” – a procedure in which small glass or plastic beads are inserted under the skin of the penis) are common practices in Thai prisons, and can heighten the risk of HIV infection.

The notion that such heightened risk of HIV infection in Thailand's prisons threatens only inmates is false. The vast majority of prisoners are incarcerated for comparatively short periods (often on many separate occasions).<sup>48</sup> During incarceration they are likely to be deprived of the information and means to protect themselves against HIV infection. Upon release, they return to the wider society.

According to the Department of Corrections, prisoners are presented with HIV/AIDS-related information when they start their sentence and again just before they are released. It is unclear how widespread or consistent this practice is. There are reports that some medical staff serving in prison facilities, of their own accord, try to provide HIV/AIDS education and counselling, as well as hand out condoms. Medical staff also provide some HIV/AIDS training for prison guards. Ad hoc service responses and limited access to service deliverers would seem to reflect a wider ambivalence within the prison system about the

current scope of the HIV/AIDS problem. The Ministry of Justice, though, recognizes the dilemma, and has welcomed collaboration with external United Nations entities to consider new methods to assess the threat of HIV/AIDS in prisons.

Prisons provide an almost unique public health opportunity for screening, counselling, educating (especially peer educating) and treating a literally “captive” audience that faces high risks of HIV infection and which, eventually, will return to the wider society. A potential and valuable prevention programme opportunities beckons. A prison-based programme could include the training of guards in counselling, training prisoners as peer educators, making voluntary counselling and testing services available, and introducing HIV/AIDS education for both inmates and prison officials. Furthermore, free syringes, sterilizing bleach and condoms could be made available. Within the wider application of treatment alternatives in the prison system, the Ministry of Justice should be encouraged to pursue pre-release programmes that include referral to suitable treatment services (including comprehensive services for harm reduction in less secure settings).

### Sex between men

Sex between men occurs and quite regularly. When researchers in 1991 asked male military personnel in northern Thailand whether they had ever slept with a man, 16 percent answered in the affirmative. Overall, studies among military conscripts have revealed that between 3 and 17 percent of the young men have had sex with other men.<sup>49</sup>

Men who have sex with men are especially vulnerable to HIV infection. One limited study found an HIV prevalence rate of 17 percent among young gay men.<sup>50</sup>

The number of male commercial sex workers has also grown from about 2,800 in 1998 to 3,500 in 2003.<sup>51</sup> Most of them are working out of gay bars in tourist areas. Clients of the male commercial sex trade are also not limited to foreign tourists. High HIV prevalence has been found among male sex workers. In 1999, prevalence among male sex workers in Phuket and Chonburi (Pattaya) was 12 percent and 9 percent, respectively. Earlier, in a five-year Chiang Mai study, HIV incidence (the rate of new infections) was just under 12 percent per year among male sex workers.<sup>52</sup> Sentinel surveillance suggests that HIV prevalence among commercial male sex workers declined in 2000-2002 to about 4-10 percent in three of Thailand's four major tourist provinces. This is still

well above the national adult HIV prevalence in the country, which was under 2 percent in that period.

There is no evidence to support the notion that men who have sex with men constitute a separate, hermetic community. On the contrary, it is clear from studies that many men reporting sex with other men also have sex with women – making them a “bridge” for HIV transmission to women. Research in Nakhon Sawan province (in central Thailand) has revealed that one third of men who have sex with male partners also have intercourse with female commercial sex workers, and one half have sex with other casual female partners.<sup>53</sup>

Similarly, studies in northern Thailand have found that men who have sex with men tend to have a higher number of lifetime sex partners (including women), frequent both male and female commercial sex workers more often, and are more likely to be married. More than half of the male commercial sex workers surveyed in a 1989-1993 Chiang Mai study were married. Such patterns add up to pose substantial risk. Indeed, new army conscripts who reported having sex with other men in a 1995 study were significantly more likely to have acquired HIV.<sup>54</sup>

Men who have sex with men therefore are not only at high risk of becoming infected themselves, but also of passing HIV on to other male and female partners. Condom use among them appears to be low. Efforts to tackle HIV transmission through sex between men are at an early stage. The Ministry of Public Health is collaborating with NGOs and United Nations agencies to develop a more comprehensive

response that meets the HIV prevention and sexual health care needs of men who have sex with men.

Other initiatives include the Men+ project which is being piloted by the Provincial Health Office in Chiang Mai and which has a component that serves men who have sex with men. In Bangkok, the Rainbow Sky project focuses its activities on self-identified gay men, including those working in entertainment venues.

### Migrant Workers

Large numbers of people cross Thailand's borders daily in search of work and trading opportunities. Most migrant workers are from Cambodia, the Lao PDR and Myanmar. Some settle semi-permanently, others move back and forth. In late 2002, the Ministry of Labour and Social Welfare launched another drive to register illegal migrants and immigrants, and by mid-2003 more than 400,000 foreigners had been issued with documents. It is believed that many more, though, still lack legal status.

While the number of foreign migrants is small compared to that of Thais moving within the country's borders, foreign migrants serve as an important source of labour for Thai industries. Yet, fear of arrest and deportation, along with language difficulties, mean that few migrants access health and other social services inside Thailand. Their knowledge about HIV/AIDS is virtually non-existent.

Studies of HIV prevalence among foreign migrants have been sporadic therefore the actual magnitude of HIV infections among them is unknown. Nonetheless,

**Table 7.3 HIV Prevalence among migrant workers in selected provinces, 1996**

Province (Region)	Number tested	HIV positive		Occupation or population groups
		No.	%	
Samut Sakhon (Central)	363	6	1.6	Construction workers
Phangna (South)	250	6	2.4	Agriculture and other
Tak (Lower North)	793	15	1.9	Agriculture and other
Chumphon (South)	34	2	5.9	Fishing and agriculture
Chiang Rai (Upper North)	700	45	6.4	Industry and agriculture
Kanchanaburi (Central)	727	23	3.2	Agriculture and other

Source: CARE (2000).

**Table 7.4 HIV prevalence of pregnant Thai and foreign migrant women in 14 provinces, 2001**

Region/Provinces	Thai Women		Migrant Women	
	Total number tested	HIV prevalence (%)	Total number tested	HIV prevalence (%)
<b>Central</b>				
Samut Sakhon	2,029	2	93	4.3
Samut Songkhram	522	1	38	5.3
Nakhon Pathom	1,555	1.6	20	5
Saraburi	1,104	1.9	27	0
Ratchaburi	1,239	1.5	41	0
Kanchanaburi	947	1.1	49	2
Trat	305	2	89	6.7
<b>North</b>				
Chiang Rai	1,619	2.5	467	2.4
Chiang Mai	253	1.6	20	0
Mae Hong Son	238	0.4	198	2.5
<b>Northeast</b>				
Nakhon Phanom	697	0.9	21	0
<b>South</b>				
Ranong	385	1	102	0
Pangnga	405	1.7	20	0
Phuket	685	2.9	41	4.9

Source: Bureau of Epidemiology, Ministry of Public Health.

available information indicates a troubling glimpse of the virus' presence among these mobile populations (see Table 7.3). Some of the early cases of HIV detected in Lao PDR, for example, were among migrant workers returning from Thailand. Anonymous HIV testing of migrant workers applying for work permits in 1996 revealed prevalence of almost 6 percent in Chumphon Province (in the South) and 6.4 percent in Chiang Rai Province.

Among foreign migrant girls and women drawn into the commercial sex industry, the likelihood of HIV infection appears to be especially high.<sup>55</sup> In Mae Sot district (Tak Province, in the northwest of Thailand), HIV prevalence among sex workers from Myanmar climbed to around 24 percent in 1994 and stayed

at that level through to 1997, while in Mae Sai district (Chiang Rai Province, in the upper North), it ranged between 17 and 33 percent during 1995-1997.<sup>56</sup>

Meanwhile, an intriguing pattern of HIV prevalence has been found among foreign migrant women attending antenatal clinics in 14 provinces (see Table 7.4). In general, HIV prevalence among these women appeared to be higher than among their Thai counterparts. Among the foreign migrant women, HIV prevalence was highest in parts of the South and Central regions, where it ranged between 4 and 7 percent. Yet in other provinces also in the South and Central regions, the reverse was found to be the case.

### Box 7.15 HIV/AIDS and highland minorities in Thailand

Northern Thailand is home to several minority groups, including the Akha, Hmong, Kachin, Karen, Lahu, Lisu, Shan and Yao. These groups are distributed along the borders of China, Laos, Myanmar, Thailand and Viet Nam in the upper Mekong region, making for a region characterized by ethnic diversity, cultural pluralism and linguistic complexity.

For centuries, the upper Mekong region has formed a coherent cultural, ecological and economic zone, and its trade and migration routes remain in use. In recent years, the opening of borders to tourism and trade in the region has allowed for increased cross-border population movement for the purposes of trade (legal and illegal) and employment. This has major implications for the epidemiology and prevention of HIV/AIDS.

Over the past three decades, the highland peoples in Thailand have suffered both economically and socially from restrictions on their farming and the degradation of their environment. Highland peoples – often referred to as “hill tribes” in Thailand – have been subject to both social stigmatization and legal discrimination. This, coupled with the breakdown of traditional social safety nets, is increasing their vulnerability to HIV/AIDS.

Many villages have experienced a rise in injecting drug use, and are seeing more girls and women being drawn into commercial sex. Girls and women from the highlands are a minority among sex workers in Thailand, but they disproportionately represent the lowest, most exploited strata of the sex industry. A lack of knowledge of HIV/AIDS and inadequate access to services in their own languages make it more difficult for highland women to negotiate condom use with clients. Moreover, increased poverty and the weakened social fabric of traditional communities have reduced their capacity to cope with the burdens imposed by the AIDS epidemic.

Research by UNESCO indicates that the lack of citizenship is one of the main factors that place highland girls and women at risk of being trafficked. Of the estimated one million highland people in Thailand, nearly half are classified as resident aliens or do not have citizenship. This hinders their access to education, jobs and adequate health care, and renders them vulnerable to exploitation by traffickers and unscrupulous employers.

Both drug use and some of the campaigns to curb it heighten the risks highland peoples face. Diminished opium production has moved many drug users first to smoking heroin and then to injecting heroin, which increases the odds of HIV infection. Fear of arrest, persecution and death has made hill tribe villagers apprehensive and suspicious of outsiders. This is further complicating the work of agencies and NGOs that attempt to provide services to these communities.

*Contribution from UNESCO*

### Box 7.16 Moving ahead

The Raks Thai Foundation and other NGOs have been carrying out HIV/AIDS prevention work among migrant workers for several years. Greater recognition in official circles of these workers' vulnerability has led to the Ministry of Public Health joining a new effort to prevent HIV infection in 24 provinces. The USD 6 million programme targets specific categories of migrant workers and focuses on seafood processing zones along the coast, as well as on agricultural and industrial areas in the North. Seafarers, many of whom are single men from neighbouring countries, will be targeted with condom promotion and other activities aimed at behavioural change. Young migrant women, particularly those working in sex and entertainment establishments, will receive reproductive health education and related services.

Programmes are also being developed for young couples and for the dependants of migrant workers. Employer groups, provincial governments, hospitals and health clinics will assist in the implementation. The overall goal is to reduce new HIV infections among migrant workers and thereby help arrest the epidemic's advance in the region.

## Seafarers

There has been little research probing the spread of HIV among mobile workers such as fishing crews, but the available evidence points to troubling trends among this population group that has been largely ignored in prevention activities. In 1998, sentinel surveillance was extended to cover deep-sea fishing boat crews of several provinces in the Central and Southern regions. Between 1998-2002, HIV prevalence levels among this group were found to vary considerably, (*see Table 7.5*).

Fishermen older than 30 years of age appeared to be at higher risk of infection than their younger crewmates. Also striking was the fact that in Pattani Province (in the lower South), HIV prevalence appeared consistently lower among foreign seafarers than among their Thai counterparts in 2000-2003.<sup>57</sup> On the other hand, when registered foreign workers in Rayong province on the eastern seaboard were tested for HIV between 1997-2002 (as part of an annual health examination), prevalence was found to range from 5 percent to as high as 23 percent.<sup>58</sup>

Fishermen and seafarers are clearly at considerable risk of HIV infection. With injecting drug use rare among these workers, sexual transmission – most likely through commercial sex – appears to be the main

mode of infection. In the early 1990s, the Fisheries Department received some budgetary support for HIV/AIDS work among boat crews. The amounts, though, were low (just 240,000 baht in 1995, for example). Since then, most of the funding has dried up. The Merchant Marine Training Centre (in Samut Prakan Province) has incorporated HIV/AIDS education in its curriculum. Some NGOs have tried to aim their activities towards fishermen and seafarers. Nonetheless, there remains much scope for improving HIV/AIDS work in this vulnerable group.

## Worsening impact

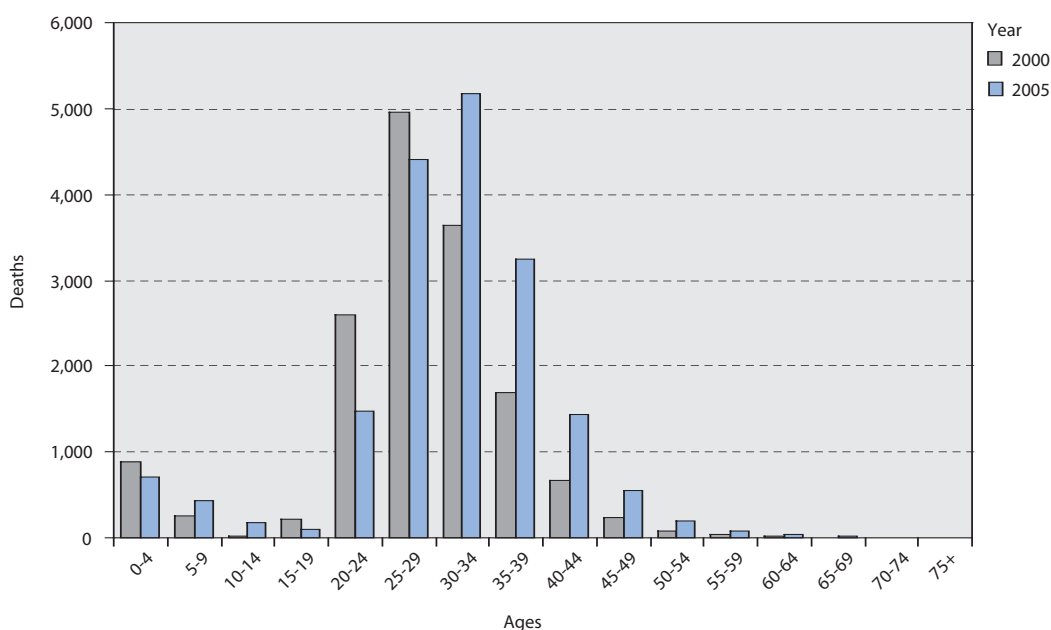
### A rising death toll

By the late-1990s, large numbers of people infected during the earlier phases of Thailand's epidemic were becoming ill and dying of AIDS. In 2003, the disease claimed an estimated 53,000 lives. Over 90 percent of AIDS deaths in Thailand are occurring among the most productive sector of the workforce, those aged between 20 and 49 years (*see Figure 7.9*). Indeed, AIDS has become one of the leading causes of death in Thailand. A study conducted in five provinces in 2000 found AIDS was the third leading cause of death, accounting for more than 11 percent of all deaths.<sup>59</sup> Overall, AIDS kills twice as many people as traffic accidents.

**Table 7.5 HIV prevalence from sentinel surveillance of deep-sea fishing boat crews, 1998-2002**

Region/Provinces	Prevalence %				
	1998	1999	2000	2001	2002
<b>Central region</b>					
Samutsakorn	-	5.8	3	3.8	-
Trat	8.8	3.3	13.7	10.2	2.2
Prachuabkirikan	-	6.1	4.3	-	-
<b>Southern region</b>					
Chumphon	5.7	12.2	3.9	5.9	5
Ranong	2	8	7.6	9.5	10
Phuket	-	-	8.9	7.4	9.3
Songkhla	24.5	11	8.4	5.5	9.5
Pattani	15.5	22	9.5	7.3	4.5
Trang	-	3	3.2	7.9	6.9

Source: Bureau of Epidemiology, Ministry of Public Health.

**Figure 7.9 Age distribution of annual AIDS-related deaths for females, 2000 and 2005**

Source: Thai Working Group on HIV/AIDS (2001), Projections for HIV/AIDS in Thailand: 2000-2020.

Predicting the overall impact of AIDS on Thailand's population is difficult. Nonetheless it has been estimated that the total population in 2004 is almost 900,000 less than it would have been without the AIDS epidemic.<sup>60</sup> Also, life expectancy at birth in 2003 was two years shorter than it would have been had AIDS not struck – 71.8 years compared to 73.8 years.

The impact is even more noticeable at the regional level. In the North, life expectancy at birth in Chiang Mai was almost five years less than it would have been without AIDS – 63.4 years as opposed to 68.1 years, and twice as many adults (aged 15-49 years) were dying in Chiang Mai in 2003 than would have been the case without an AIDS epidemic.<sup>61</sup>

The number of children orphaned by HIV/AIDS has been rising in step with these AIDS mortality trends. The relatively strong family networks that prevail across much of Thailand have thus far ensured that most of these children are fostered by surviving relatives. Studies suggest that almost half the children orphaned by AIDS are living with their grandparents, and about one sixth with a surviving parent or parent-in-law. Orphanages and temples also play an important role. Nonetheless, it is believed that a sizeable proportion of the children could be slipping through this fostering net.<sup>62</sup>

### High costs

Serious illness typically imposes extraordinary financial demands on households. AIDS is no exception, especially in a low-income household. The duration of serious illness for a person living with HIV/AIDS appears to be shorter in Thailand than for many other chronic illnesses (about one year, compared to almost five years in the latter instances).<sup>63</sup> This also means that the medical expenses associated with AIDS-related illnesses are compressed into a shorter period – leaving less time and scope for devising ways to meet these sudden, additional costs.<sup>64</sup>

Once indirect costs (such as lost and foregone future income) are factored in, the financial toll of AIDS outstrips that of other chronic diseases by a wide margin, (see Figure 7.10). The reason is that AIDS strikes chiefly among people in their most productive year. The average age of people dying of AIDS in Thailand is 36.

AIDS is an extreme shock to the livelihoods of affected households. It distorts household composition depletes savings and assets, and saps livelihoods – further impoverishing the poor and sometimes plunging even relatively secure households into poverty.



When this occurs, the first resort is usually to cut expenses. A survey in Chiang Mai has found that roughly half of the affected households cut other expenditures, including food. One tenth of them said they had to remove children from school to compensate for lost labour.<sup>65</sup> Households are also forced to respond by taking out loans and selling assets. Another study found that 11 percent of households sold property and other assets.<sup>66</sup> In the midst of a serious epidemic, costs and debts resulted in the auctioning off household assets. This increases the burden shouldered by survivors,

some of whom might eventually fall prey to the disease, thereby triggering greater vulnerability.

Extended family networks continue to function as social safety nets for most Thais. AIDS, though, is posing new challenges. An epidemic that causes high mortality among people of child-rearing age can also affect fostering arrangements, with those responsibilities weighing heavily on the elderly, particularly women. One study in the North has found, for example, that four in five people who died of AIDS were living with their parents at the time

### Box 7.17 Stigma and discrimination – violation of human rights

Thailand is widely seen as having achieved a more open and tolerant approach toward people living with HIV/AIDS than many other countries in the region. Community-based organisations have played a prominent role in HIV care and prevention activities. This, in turn, has magnified the public voice of people living with HIV/AIDS and their influence on policy in Thailand's response, and helped to reduce the stigmatization they might otherwise have experienced. Nonetheless, there is still evidence of widespread discrimination against people with HIV/AIDS in Thailand.

A study by the Asia Pacific Network of People Living with HIV/AIDS (APN+) found that a quarter of people living with HIV/AIDS in Thailand report being insulted and harassed because of their HIV status. It found that some people with HIV still have to contend with their HIV status being disclosed to family members or neighbours without their consent – in some cases, even by health care workers who should be bound by obligations of confidentiality. In some communities, particularly those in areas less severely affected by the epidemic, attitudes to people with HIV remain ignorant and ill-informed about HIV/AIDS.

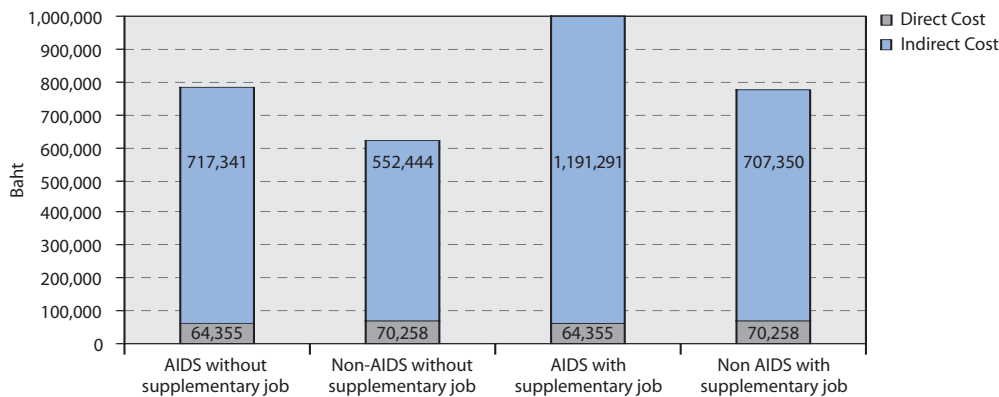
The study cites examples of people living with HIV/AIDS being shunned by community members, of children being forbidden to play with other children, and even of shopkeepers refusing to serve them. There are also accounts of discrimination against people with HIV in the health system. It was reported that HIV testing occasionally still occurs in hospitals without the informed consent of the patient.

Forty percent of people living with HIV/AIDS reported breaches of confidentiality within the health system. Som 56 percent of the people surveyed said they received no pre-test counselling before being tested for HIV and 40 percent received no counselling after being told they had HIV. In the context of limited health resources, many people with HIV felt they were discriminated against indirectly by health care workers who gave priority to other patients.

Discrimination against people with HIV in the workplace remains in a major problem. Some people with HIV reported having been dismissed from their jobs once their HIV status became known, being asked to sit separately from other workers or being shifted to less responsible tasks. Often, employers gave other reasons for the discriminatory treatment, making it more difficult to challenge such actions. Many employers in Thailand still require job applicants to test for HIV before employment – maintaining that they have the right to ensure that only “healthy” workers are employed.

Lawyers assisting people with HIV say that their clients are fearful of challenging HIV-related discrimination in court because of the loss of privacy this could entail and the worry that it might trigger more victimization. This highlights the extent to which HIV-related discrimination is a reflection of the lack of knowledge about HIV/AIDS. There remains much scope for countering stigma and discrimination experienced by people living with HIV/AIDS, and for shaping a response that upholds the rights and dignity of all those affected by the epidemic.

Source: Julic Hamblin 2004.

**Figure 7.10 Comparison between direct and indirect costs associated with chronic illness, AIDS and non-AIDS**


Source: Thai Working Group on HIV/AIDS Projection, 2001. Projections for HIV/AIDS in Thailand: 2000-2020.

of death, and about one third of them had moved there from another area.<sup>67</sup> Worth noting is the fact that most had sought the care and support of parents during the terminal stages of illness, when care needs are particularly intensive.

The financial and emotional burden is further compounded by the strain, humiliation and discrimination (see box 7.18). People might find themselves shunned by the community and neighbours. People living with HIV/AIDS still complain of callous, even condemnatory treatment by hospital staff. At work, they

may face the wary distance colleagues maintain from them or, worse, discover that their services are no longer required. Children living with HIV/AIDS might see their friends being shooed away from playing with them. At funerals, some mourners take care not to partake in the food or drinks, for fear of becoming infected. Others simply decline the invitations. Thankfully, studies suggest this sort of behaviour is not the standard, and reports of stigma and discrimination appear less commonplace in areas where the epidemic already has exacted a heavy toll.

### Box 7.18 Safeguarding the bottom-line: role of business sector

Thailand's business sector got involved in HIV/AIDS work quite early on, partly in response to dramatic predictions about the scale of damage an unchecked epidemic could inflict on the economy. The Thai Business Coalition on AIDS was set up in 1993 as a link between the HIV/AIDS activities in the private and public sectors. It has supported education and prevention seminars, and has made efforts to get appropriate HIV/AIDS workplace policies adopted.

Persuading individual companies to take action was not easy at first. The Coalition devised an incentive scheme, and set up the AIDS Response Standard Organization to coax more employers into the campaign fighting against the spread of the epidemic. Companies that introduced effective HIV/AIDS workplace programmes, for example, would be certified by the organization and rewarded with rate reductions in their group life insurance policies. The offer made good business sense. During 2000-2001, some 125 companies signed up. One hundred of them received their certificates and qualified for the rate reductions.<sup>68</sup>

Despite such efforts, discrimination against people living with HIV/AIDS has persisted in the workplace. Of the 152 companies contacted in a 2001 survey, more than one third followed a policy of sacking HIV-infected workers.<sup>69</sup> About one quarter of them required workers to undergo mandatory HIV tests before being hired. A 2001 study found that one-third of workers were afraid to share toilet facilities or eat with HIV-positive colleagues, while one fifth preferred not to work in the same area as those colleagues.<sup>70</sup> Ignorance and fear are still commonplace.

### Ripple effects

These tragedies are concentrated largely in individual households, families and communities. The effects, however, register more widely. In enterprises, AIDS can weaken output by decreasing productivity, adding costs, diverting productive resources and depleting skills. The epidemic hits productivity mainly through increased absenteeism, organizational disruption, and the loss of skills and institutional memory. Rising absenteeism tends to push visible costs up

while forcing productivity down. Production cycles can be disrupted, equipment stands idle, and temporary staff may need to be recruited and trained. While it is difficult to gauge the overall impact of the epidemic on Thailand's economy, it is possible to get an idea of the possible income losses caused by AIDS illness and death. Calculations show that the total income losses and foregone income attributable to the AIDS epidemic in 2000 came to more than 40 billion baht (USD 1 billion).

**Table 7.6 Estimated income foregone due to HIV/AIDS, 1996-2000**

Income foregone	1996	1997	1998	1999	2000
<b>HIV infection</b>					
Male	86,400,000	68,300,000	60,900,000	51,400,000	50,800,000
Female	119,004,000	102,800,000	88,300,000	73,800,000	65,800,000
<b>AIDS illness</b>					
Male	784,600,000	835,600,000	862,500,000	878,700,000	867,400,000
Female	163,600,000	212,600,000	262,100,000	312,700,000	360,600,000
<b>Death</b>					
Male	22,565,900,000	25,601,200,000	27,122,800,000	28,739,800,000	29,915,400,000
Female	3,002,900,000	4,386,600,000	5,792,300,000	7,464,300,000	9,261,400,000
<b>Total</b>					
Male	2,343,700,000	26,505,200,000	28,046,200,000	29,670,000,000	30,833,600,000
Female	3,285,900,000	4,702,000,000	6,142,700,000	7,850,900,000	9,687,700,000
<b>Grand Total (Baht)</b>	<b>26,722,900,000</b>	<b>31,207,200,000</b>	<b>34,188,800,000</b>	<b>37,520,900,000</b>	<b>40,521,300,000</b>

Notes: These calculations used the minimum wage, adjusted by the unemployment rate and disability weight. A discount rate of 3 percent was applied to arrive at income foregone after death. Average age at death was 36.4 (males) and 36.3 (females). The numbers of annual, new HIV infections, AIDS cases and AIDS deaths were derived from Rumakom, 2002.



---

# The Way Forward

## 8

Thailand is widely regarded as a showcase in the struggle against HIV/AIDS. After peaking at 143,000 in 1991, the annual number of new HIV infections has fallen sharply to just over 20,000 in 2003 – making Thailand one of a handful of countries to have reversed a serious HIV/AIDS epidemic and been able to meet Millennium Development Goal 6 well ahead advance of schedule.

The challenge now is to prevent these achievements from being eroded and overtaken by the shifting nature of the country's epidemic. Indeed, there is a real danger that the accomplishments of the previous decade could turn into a liability. Amid the drive to revitalize the economy and regain developmental momentum after the 1997 financial crisis, the epidemic has slipped to the lower rungs of national priorities.

Funding has been cut. Public expenditure on the national AIDS programme declined by 24 percent in during 1997-2000, and fell a further 31 percent between 2001-2003, while the prevention budget accounted for just 8 percent of the total HIV/AIDS programme budget in 2003. Spending on prevention activities – which now stands at three-quarters of the level in 1997 – is below par for a country with a firmly-established epidemic and where high-risk behaviour remains so prevalent.

Public information and education campaigns are now faint. Public concern about HIV/AIDS has ebbed. The inadequacy of programming directly aimed at some key circuits of HIV transmission – notably injecting drug users, men who have sex with men and young people in general – is a particular cause for concern. In the minds of many, AIDS has been vanquished. Were it only so – for Thailand's epidemic has far from run its course.

Over time the epidemic has matured and the spread of HIV is now more heterogeneous than a decade ago.

A new phase has arrived in which the epidemic becomes endemic, making HIV/AIDS a chronic reality in Thailand, with large numbers of people requiring treatment, care and support. In the meantime, new HIV infections are spreading among diverse population groups, making it more difficult to detect and prevent new infections.

All this adds up to a triple challenge. The first is to provide and sustain effective treatment and care. The second is to cushion the impact of AIDS on household and communities. The third is to curb HIV transmission where the risk of infection is highest. Achieving all three will be no easy feat.

### **Fire up the response**

Along with strong leadership and commitment, a key factor in Thailand's success was the ability to devise appropriate systems and strategies. But it cannot be assumed that previous strategies are still suited to current realities. New strategies and systems along with a renewed surge of political commitment are needed. This amounts to more than a technical challenge, or a sheer test of will.

### **A new wave of commitment**

Leadership was instrumental in Thailand's extraordinary achievement in reversing the spread of HIV/AIDS, highlighting the need for political and other top-level leaders to take the responsibility of being catalysts in an effective response. Many top-level leaders, particularly in the early- to mid- 1990s, took up the gauntlet. They spoke out, led by example, fired up public awareness, trumped institutional inertia and vacillation, and inspired action that helped turn the tide.

Now, as the epidemic shifts into a new phase, Thailand has a golden opportunity to again lead

the way. Recharged leadership and commitment are needed to breach the complacency that threatens to settle around the epidemic, to haul HIV/AIDS back into the spotlight, to ensure that resource allocations match the job at hand, and help the country get the upper hand over AIDS.

### ***New systems and strategies ...***

A large part of the challenge is to assess and bring the HIV/AIDS strategy and systems in line with a changing epidemic and its context. It is not clear, for example, whether a centrally coordinated response offers the best way for channelling political resolve. New, flexible mechanisms are called for. These might include new management arrangements that are tailored to budgetary and public sector reforms (at the national level), to the boosted authority of governors (at provincial level), and to the epidemic's specific features and the greater financial powers of local authorities (at the local level).

#### ***... that match the context ...***

Policies and programmes are more likely to lead to success if they correspond and adapt to the patterns of the epidemic. Programmes that reflect community-level realities therefore take on greater importance. Decentralizing the planning and budgeting authority to local structures down to sub-district level could help achieve this. More technical and financial support for local-level programming, implementation and monitoring is required.

#### ***... boost broad-based collaboration ...***

The national HIV/AIDS committee faces the challenge of providing overarching guidance to the AIDS response and forging broad-based partnerships in a new context. The customary approach has been to enlist various stakeholders into collaborations that focus singularly on HIV/AIDS. Yet, an inverse approach also holds much appeal. It would see HIV/AIDS activities (including those geared at cushioning the social and economic impact on households and communities) integrated into wider socio-development policies and programmes. In light of the complex factors that drive the spread of HIV and the potential interplay between the epidemic and other social and economic policies, such an approach seems sensible. It would require that HIV/AIDS programme managers join forces with counterparts to identify the common societal dynamics they are encountering, and increase the potential for coordinating their interventions.

#### ***... improve coordination ...***

Public agencies are required to streamline their missions and operations in accordance with public sector reforms and sometimes tight fiscal policies. A new budgeting system now gives accountability for programme performance to each respective public agency. While the National AIDS Committee has remained the prime instrument for coordinating a multi-sectoral response, it is more difficult to harmonize these new functions with the roles envisaged for them in the HIV/AIDS response. It is therefore unclear what authority and accountability now rests with the National AIDS Committee with regard to the HIV/AIDS activities of various ministries.

The time is ripe for the Committee to overhaul its mandate and modify its functions. There are three priorities: re-focus on effective coordination of the various spheres of the response; consolidate the AIDS programme and promote results-based budgeting and decentralization; and, once again, mobilize a wider range of government agencies, local government, and non-governmental organizations to revive a broad-based response.

#### ***... keep reliable information flowing ...***

A steady flow of reliable information and analysis is invaluable. A good deal of the capacity to collect and interpret the data already existed, and was systematically expanded and refined as the epidemic grew. This made it possible to adjust the strategy and programmes as required. With HIV/AIDS gradually becoming endemic and lodged in various sections of the population, the existing monitoring system might need to be adapted to provide appropriate policy guidance. Some surveillance activities have been modified (such as those among army conscripts and school students), but such improvements need to be extended if monitoring systems are to provide appropriate policy guidance.

#### ***... invest in the response ...***

Spending on AIDS no longer matches the threat. The economic crisis of the late 1990s drew into focus a range of developmental challenges. The epidemic is actually entwined with these developmental challenges. HIV/AIDS feeds on inequalities and dispossession, and worsening the situation, in turn. It was this understanding that convinced policymakers in Thailand in the early 1990s to follow a more holistic approach that enabled greater resources to be devoted to the response.

**... put prevention back on the map ...**

There is a manifest need to revitalize prevention efforts and extend them to all sections of the population at risk of HIV infection. The funding devoted to prevention programmes is puny compared to the amounts made available during much of the 1990s. The prevention budget for 1997 stood at 217.3 million baht. By 2003 it was estimated at 80.7 million baht. In 2003, only 8 percent of the HIV/AIDS budget was devoted to prevention.

such as injecting drug users, migrant workers, indirect sex workers and men who have sex with men.

**Broaden the focus of prevention...**

Not only is the epidemic more heterogeneous than before, but the virus is spreading among socially vulnerable groups that might lack access to the kinds of services that can protect them against infection. While still an important factor in the spread of HIV, brothel-based sex work has been

**Table 8.1 HIV/AIDS prevention budget, 1997-2003**

Year	Budget (million baht)	Prevention budget (million baht)	Prevention as share of HIV/AIDS budget (%)
1997	1,986.02	217.31	10.9
1998	1,481.54	138.28	9.3
1999	1,516.24	164.03	10.8
2000	1,507.22	104.08	6.9
2001	1,443.84	123.17	8.5
2002	1,060.73	93.00	8.7
2003	1,003.23	80.66	8.0

Note: Figures for 2002-2003 reflect actual budget expenditures. These two amounts did not cover the AZT component of the Prevention of Mother-To-Child HIV Transmission programme, nor the universal precautions, and opportunistic infection treatment programmes (these were integrated into universal health care coverage). In addition, the Government allocated some amounts from central funds to support the antiretroviral programme.

Source: Bureau of the Budget, Office of Prime Minister; Fiscal Policy Office, Ministry of Finance; Comptroller General Department, Ministry of Finance.

**... and foster civil society involvement**

The potential of NGOs and community-based organizations needs to be fully exploited. Civil society organizations, including AIDS NGOs and groups formed by people living with HIV/AIDS, have played vital roles in Thailand's response. As more Thais succumb to AIDS-related illnesses, their efforts gain even greater prominence, particularly in providing community-based care and support.

Some studies have raised concerns about weak technical capacity, unrealistic administrative burdens (much of it imposed by donor reporting requirements) and difficulties in sustaining programme activities. Despite the increases in funding support for AIDS NGOs, the share of the overall AIDS budget going to civil society groups in Thailand remains small (about 6-7 percent), compared to many other countries. Yet, NGOs and community-based groups are often better placed to reach marginalized populations,

overtaken by other patterns of risky behaviour. "Indirect" sex work is now a much more prominent part of the country's sex industry. Levels of HIV infection are exceptionally high among injecting drug users. High HIV prevalence has been found among men who have sex with men and among seafarers. Infection levels among pregnant women remain high in some parts of the country, particularly in the South.

**... to protect young people**

Only between 20 to 30 percent of sexually active young people are using condoms consistently. It is estimated that less than 5 percent of young people are being reached by adequate prevention services. Public awareness campaigns have all but faded from view. Required now are programmes that match the diversity of risk behaviour among youth groups. This will require some investment in social research in order to gain clearer insights into the social dynamics

that are fuelling the spread of HIV.

There is room for innovative work here. The education system – particularly schools – can be more effectively mobilized. One step would be for the Ministry of Education to include non-judgmental HIV/AIDS and sex education in school and tertiary curricula. Some of the opposition from parents and administrators to such moves stem from the notion that sex education encourages promiscuity. Yet, in countries that have systematically introduced life skills programmes, open debate about sexual health, condom promotion, and peer education in schools and universities, the evidence suggests otherwise.

Young men who have sex with men are especially at risk of HIV infection. Some studies indicate an HIV prevalence as high as 17 percent among this group, but little is being done to provide them with appropriate safe sex education and prevention services.

Many young people are still being drawn into the sex trade, whether as workers or clients. Experimentation with sex and drug use appears to be on the rise among young Thais, including those of school age. These activities pose new challenges as they put more young people at risk of HIV infection.

#### *... injecting drug users ...*

Unsafe injecting drug use is an increasingly significant cause of new HIV infections in Thailand. About one quarter of all new infections occur through unsafe injecting drug use, and projections suggest that this proportion could rise to as high as 40 percent in the next few years. Yet, very little of the prevention budget is currently deployed on this front. This needs to change.

The crackdowns on alleged drug dealers, coupled with limited access to comprehensive harm reduction services, could be priming an ideal climate for a more extensive spread of the virus. Punitive campaigns against people at high risk of HIV infection tend to force them beyond the reach of both prevention and treatment efforts, thereby compromising the HIV/AIDS response.

With sporadic incarceration a reality for many drug users, prisons also offer settings that favour HIV transmission. On both these fronts, Thailand can lead the rest of Asia by drawing on the array of positive programmes introduced elsewhere in the world,

and adapting them to its context. The fact that injecting drug use is illegal should not block the path of effective action. A pragmatic approach – like that adopted toward sex work in the 1990s – is much more likely to bring success.

#### *...mobile populations...*

The epidemic in Thailand is now shifting in other ways too, with high HIV prevalence rates among migrant workers in the construction, agriculture, and fisheries industries. In some industrial locations the HIV prevalence has reached 6 percent. Seafarers and fishermen are especially at risk for HIV infection since they are difficult to reach with AIDS education. Top priority is needed to roll out aggressive AIDS education, safe sex and condom promotion programmes skilfully targeted at those most at risk.

#### *... and sex workers*

A drop in the demand for commercial sex, and high rates of condom use by brothel-based sex workers helped reverse Thailand's epidemic during the 1990s. Those achievements can and should be sustained. But HIV infection rates among brothel-based sex workers remain high – a reminder that a significant proportion of HIV infections are still occurring in the sex trade. If the guard is dropped, more vigorous HIV spread could resume among sex workers.

While keeping the pressure on brothel-based HIV transmission, prevention efforts must now also reach the increasing numbers of so-called "indirect" sex workers who operate in settings that are less easily regulated. On this front, it is worth noting concerns that the sexually-transmitted disease clinic network – so vital a factor in the 100% Condom Programme – no longer seems to provide as strong a link between sex workers and health care services as before. New strategies are needed to bring effective HIV prevention strategies to the men and women who operate in these new environments.

### **Cushion the epidemic's impact**

It is estimated that the epidemic has claimed about 50,000 lives each year in Thailand since the late 1990s, and about 58,000 in 2003. Over 90 percent of AIDS deaths in Thailand are occurring among people aged 20-49 years, the most productive age group. Indeed, AIDS is now the leading cause of death among young adults in Thailand. In 2003, AIDS accounted for twice the number of deaths due to traffic accidents.



*... by expanding community care and treatment access ...*

There is a massive need for adequate care and support at household and community levels, and considerable unmet demand for antiretroviral treatment. Some 21,000 people currently have access to antiretrovirals out of a bare minimum of 100,000 who urgently need such treatment. Commendably, the Government has pledged to provide an additional 50,000 people with treatment in 2004. Equipped with the advantage of a well-organized and capable health system, it is conceivable that Thailand can lead the way in the global campaign to expand access to antiretrovirals.

Yet some hurdles need clearing. A major effort is needed to strengthen the capacity of the health system to cope with the challenges of providing antiretroviral treatment to tens of thousands of patients. Provision of antiretroviral treatment will have to be carefully managed to limit the chances of drug-resistant strains of HIV from becoming prominent. Enhanced biomedical monitoring and research are, therefore, important components of Thailand's treatment and care strategy.

Even though voluntary counseling and testing services are available at over 1,000 hospitals and clinics, they are unevenly distributed. Many rural areas still miss out. Consequently, many people are not being tested and therefore cannot benefit from early detection of their HIV status.

In addition, treatment needs to be linked to basic care of AIDS patients. Among officially reported cases, a large proportion of AIDS patients are diagnosed with preventable and treatable infections, such as tuberculosis, *Pneumocystis carinii* pneumonia, and fungal infections. There is great scope for expanding access to cost-effective options for prophylaxis and treatment of opportunistic infections for AIDS patients.

*... supporting affected households and communities ...*

It was not until the late 1990s, when the damage caused by the epidemic became more visible, that

alleviating the social and economic impact became an explicit goal of the National AIDS Plan. The goal has not been adequately developed nor funded. Steps to alleviate the epidemic's impact are best integrated into other efforts to strengthen livelihoods and boost the well-being of households and communities. There is ample scope for building impact alleviation into wider development policies and programmes, addressing the needs of communities and households affected by HIV/AIDS, and the many orphans left behind.

*... and defusing stigma and discrimination*

Stigma and discrimination continues to undermine the response. Many people living with HIV/AIDS still find themselves routinely hounded and discriminated against. Such discrimination includes being shunned by community members and co-workers, being denied employment or sacked from jobs because of their HIV status, and the breaching of confidentiality within the health system. A public education campaign to defuse stigma and discrimination continues to be a top priority, as does the tightening of confidentiality in the health care system.

**Shifting gears**

A mix of resolve, incisive strategizing and good fortune enabled Thailand to reverse an epidemic that seemed on the verge of spinning out of control. But while Thailand remains an inspiring example that a rampant epidemic can be curbed, it has not vanquished HIV/AIDS. Twenty years after the first AIDS cases were detected in the Kingdom, the epidemic is again a moving target.

A defining feature of Thailand's response has been its pragmatism: the way it has focused on the core problem, implemented campaigns and made the most of existing advantages and capacities. That approach – along with the knowledge, skills and systems built along the way – gives Thailand an advantage as it shifts gears to respond to this new phase of its AIDS epidemic.



---

## End Notes

- <sup>1</sup> The Ministry of Public Health in 1985 (under the provisions of the Infectious Diseases Act) mandated each health establishment to report every AIDS case it encountered.
- <sup>2</sup> In comparison the rate in the US was estimated at 1 in 300,000 transfusions (World Bank 2000).
- <sup>3</sup> The Ministry of Public Health launched HIV monitoring at Thanyarak hospital (the largest in-patient drug treatment facility in Bangkok) in September 1987. In February 1998, the Bangkok Metropolitan Administration conducted an HIV seroprevalence survey in the 17 drug treatment clinics under its authority.
- <sup>4</sup> There appears to be no commonly agreed HIV prevalence statistics for IDUs at this time. According to Weniger et al., (1991), HIV prevalence among Bangkok users went from 2 percent to 40 percent in six months in 1989.
- <sup>5</sup> The number of provinces in Thailand increased to 76 after 1993.
- <sup>6</sup> Rising HIV prevalence was also found among indirect sex workers, though the levels were less than half than the brothel-based counterparts. Another large survey study (see Traisupa et al., 1990) in the same period sampled female commercial sex workers from Bangkok, Chiangmai, Pataya and Puket and found very low HIV seroprevalence of 0.1 to 0.4 percent. This data points to an uneven HIV spread in the commercial sex worker population and suggests that the epidemic was initially localized among women working in specific sex establishments.
- <sup>7</sup> See the policy profiles in Henry (1997).
- <sup>8</sup> Thais from the rural areas tend to dominate the intakes of 21-year-old military conscripts. The high levels of HIV prevalence among them meant that the epidemic could also spread in the rural areas when they went home. This is an interesting difference between Thailand's epidemic and that of many African countries during the same period. In Africa, the epidemic surged first in urban areas. In Thailand the epidemic spread in both urban and rural areas.
- <sup>9</sup> The AIDS and STD section in each Provincial Public Health Office kept rosters of sex work establishments in the province. They updated every six months based on reports from men and sex workers at the Government STD clinics (UNAIDS & AIDS Division, MoPH, 2000:20).
- <sup>10</sup> Bunnell et al. (1999).
- <sup>11</sup> Figure 4.2 is derived from monitoring of direct and indirect commercial sex workers as part of the HIV sentinel surveillance conducted by the Bureau of Epidemiology, Ministry of Public Health. The sex workers in the seroprevalence studies were interviewed at the same time as blood samples were taken. The subjects were from provinces all over the country.
- <sup>12</sup> Division of Venereal Diseases, Annual Reports 1999 and 2000, Ministry of Public Health, Thailand.
- <sup>13</sup> STD rates started declining from 1989-1990 —well before the full implementation of the 100% Condom Programme. One possible explanation is that the early public campaigns – especially the wide media coverage of the 1989 HIV surveillance findings – were already persuading significant numbers of men to avoid commercial sex or at least use a condom.

- <sup>14</sup> Army Medical Science Research Institute, Royal Thai Army (1998).
- <sup>15</sup> Van Landingham & Trujillo (2002).
- <sup>16</sup> This trend would not continue as the condom use among indirect sex workers nationally declined from 1999 (see Figure 4.7 and Phoolcharoen 1998b).
- <sup>17</sup> Ainsworth & Teukul (2000).
- <sup>18</sup> UNAIDS & AIDS Division, MoPH (2000).
- <sup>19</sup> Phoolcharoen (1998b).
- <sup>20</sup> Denduang & Charusomboon (1993).
- <sup>21</sup> Rujanavet & Chinchotkasem (1995).
- <sup>22</sup> Overseas development assistance was supplemented by dramatically increased national budget for HIV/AIDS. Significant proportions were also earmarked for civil society organizations. For example, the national budget to support activities of AIDS NGOs and groups of people living with HIV/AIDS increased from 5 million baht in 1992 to 90 million baht in 1997.
- <sup>23</sup> World Bank (1999) citing Phongpaichit & Baker (1998:307-8).
- <sup>24</sup> Underemployment went from 2.2 percent to 4.6 percent over the same period (Jitsuchon 2001).
- <sup>25</sup> The fiscal year in Thailand runs from 1 October to 30 September.
- <sup>26</sup> Each school administration had to decide whether it wanted to and could afford to offer life skills education and training.
- <sup>27</sup> The budget line for AIDS treatment covered mainly drugs for groups of AIDS patients enrolled in clinical trials. Health care needs of other AIDS patients were financed through the regular budget of Ministry of Public Health.
- <sup>28</sup> Ford et al. (2000:560-3).
- <sup>29</sup> Rumakom (2002).
- <sup>30</sup> Ministry of Public Health (2000:219).
- <sup>31</sup> According to Dr. Ratana, Community Medicine Department, Chiang Mai University, 2003.
- <sup>32</sup> There were several interesting findings in the survey on students (see Jenkins et al., 2002). About half the students surveyed were sexually active. Among those 20 and older, 65 percent were having sex. Peer norms as well as birth control were also main reasons for condom use among this group. STD rates were also apparent among the students and included gonorrhea (less than 0.5 percent) and chlamydia (6 percent among females and 4 percent among males). In terms of drug use about one in five of the young women, for example, reported a history of metamphetamine use.
- <sup>33</sup> Awareness of HIV/AIDS was high but knowledge of STDs was comparatively poor (Paz-Bailey 2003).
- <sup>34</sup> Based on data from the Institute for Population and Social Research, Mahidol University; the Foundation for Women in Thailand; and World Health Organisation (2000).
- <sup>35</sup> Buckingham & Meister (2003).
- <sup>36</sup> Sirinak et al. (2003).
- <sup>37</sup> UNAIDS & AIDS Division, Ministry of Public Health (2000:16).
- <sup>38</sup> Perngmark, Celentano & Kawichai (2003:1153-6).
- <sup>39</sup> Nelson et al. (1999).

- <sup>40</sup> The Narcotics Act 1979 classified narcotics into five categories. Those in possession of dangerous narcotics such as heroin, amphetamine, methamphetamine, ecstasy and LSD face imprisonment of one to ten years. Those consuming dangerous drugs face prison terms of six months to ten years (Legal Affairs Division 2000).
- <sup>41</sup> Poshyachinda (1995).
- <sup>42</sup> Needles and syringes are available from pharmacies (apart from some rural communities where supply is still a problem). Nonetheless HIV prevalence among injecting drug users remains very high. For example, in a study in Bangkok 96 percent of the participants obtained clean injecting equipment from pharmacies, yet they still continued to needle share. There are obviously cultural and behavioural factors at work. The fear that police would regard possession of syringes as proof of drug use might be one of the reasons for this behaviour.
- <sup>43</sup> See Hammet, Harmon & Rhodes (2002:1789-94) and Guimaras (2001:111-18).
- <sup>44</sup> Schmidt (2004).
- <sup>45</sup> Treerat et al. (2000).
- <sup>46</sup> Weniger et al. (1991).
- <sup>47</sup> Thaisri et al. (2003).
- <sup>48</sup> According to information posted on the Department of Corrections website almost 70 percent of all prisoners were serving a medium-term sentence of between one and ten years—in 2002 (see also Schmidt 2004).
- <sup>49</sup> Overall, studies among the young military conscripts reveal a wide range of between 3 percent and 17 percent that have had sex with other men.
- <sup>50</sup> Griensven F v et al. (2004), *Prevalence and Risk Factors for HIV Infection among Men who have Sex with Men in Bangkok*. XV International AIDS Conference, Bangkok, 2004. Abstract number: WePpC2068
- <sup>51</sup> STI Working Group Study, 1997-2003, Bureau of AIDS, TB and STI's, Department of Disease Control, Ministry of Public Health (2003).
- <sup>52</sup> STI Working Group Study, 1997-2003, Bureau of AIDS, TB and STI's, Department of Disease Control, Ministry of Public Health (2003).
- <sup>53</sup> Kunawararak et al. (1996).
- <sup>54</sup> Lertpiriyasuwat et al. (2003).
- <sup>55</sup> Kunawararak et al. (1995).
- <sup>56</sup> Limanonda (1997).
- <sup>57</sup> Pattani Provincial Health Office (2003).
- <sup>58</sup> Rayong Provincial Health Office (2003).
- <sup>59</sup> Chuprapawan et al. (2003).
- <sup>60</sup> Wongboonsin et al., (1997).
- <sup>61</sup> Rhucharoenpornipanich (2004).
- <sup>62</sup> Knodel et al. (2001).
- <sup>63</sup> Im-em & Puangsaijai (1999).
- <sup>64</sup> The average medical care costs were 29,274 baht (USD 731.85) per person with AIDS and 42,955 (USD 1,073.87) for other chronic diseases. Once adjusted for the duration of the illness, the costs in the AIDS scenario was almost doubled that for other chronic diseases 53,880 baht for AIDS and 28,508 baht for other diseases (USD 1,347 and 712.7 respectively) (Im-em & Puangsaijai 1999).

<sup>65</sup> UNDP (2001:10)

<sup>66</sup> Pittayanon et al., (1997).

<sup>67</sup> Knodel et al., (2001).

<sup>68</sup> Thai Business Coalition (2002).

<sup>69</sup> Lerttaveepornkul (2001).

<sup>70</sup> Panakitsuwan (2001).

---

# Selected Bibliography

Ainsworth M., Beyer C., & Soucat A. (2002), "AIDS and Public Policy: The Lessons and Challenges of 'Success' in Thailand", *Health Policy*, Vol.64, pp.13-37.

Ainsworth M., Beyer C., & Soucat A. (2001), "Success and New Challenges for AIDS Control in Thailand", *AIDS Science*, Vol.1, No.5 (July 13).

Ainsworth M., & Teokul W. (2000), "Breaking the Silence: Setting Realistic Priorities for AIDS Control in Less-Developed Countries", *Lancet*, No.356, pp.55-60.

Allen D. R. et al. (2003), "Sexual Health Risks among Young Thai Women: Implications for HIV/STD Prevention and Contraception", *AIDS and Behavior*, Vol. 7, No 1 (March), pp.9-21.

Amornrat L., et al. (2002), "Assessment of the HIV/AIDS Surveillance Reporting System in Trat Province: 2001" *Monthly Epidemiological Surveillance Report*, Vol.33, (Supplementary 1, March), pp.62-74.

Amornwichee M.P.H. et al., (2002), "Preventing Mother-to-Child HIV Transmission: The First Year of Thailand's National Program", *Journal of the American Medical Association*, Vol.288, No.2 (July 10), pp.245-248.

Anon. (1993) The HIV87 study Groups: Multicenter randomized placebo-controlled study of dithiocarb (imuthiol) in human immunodeficiency virus-infected asymptomatic and minimally symptomatic patients. *AIDS research and human retroviruses*. Vol. pp.83 – 89.

Armed Forces Research Institute of Medical Science (1998), "Report on HIV Prevalent Rate on New Military Conscripts, Royal Thai Army 1990-1997" Bangkok.

Atthaborvornpisal D., et al., (2001), "Study on Rate of Condom Use among Population in Saraburi Province in 2000", *Paper Presented at 8th National AIDS Conference*, 11-13 July. Bangkok.

Banyong P. & Unarine C. (2002), "HIV Prevalence among Pregnant Women Attending ANC", *Monthly Epidemiological Surveillance Report*, No.33 (Supplement 2 March), pp.34-40.

Beyer C., et al. (2002), "Drug Use, Increasing Incarceration Rates, and prison – associated HIV risks in Thailand", *AIDS Behaviour*, Vol.7, No.2 (June), pp 153-61.

Beyer C., et al., (1995), "Same-sex Behavior, Sexually Transmitted Diseases and HIV Risks among Young Northern Thai Men", *AIDS*, Vol.9, No.2 (February), pp.171-6.

Bogird C. & Jongpaiboolpathna J. (1989), "HIV Infection among Intravenous Drug Users: A Study at Hat Yai Hospital, 1988-1989", *Thai AIDS Journal*, Vol.1, No.2, pp.83-87 (in Thai).

- Brown, T. (2003), "Understanding HIV/Prevalence Differential in Southeast Asia", East-West Center/Thai Red Cross Society, Collaboration on HIV Analysis, Modeling and Policy, Bangkok
- Buavirat A., et al. (2003), "Risk of Prevalent HIV infection Associated with Incarceration among Injecting Drug Users in Bangkok, Thailand: Case-control Study", *British Medical Journal*, Vol. 326 (7384):308, 8 February
- Buckingham R. & Meister E. (2003), "Condom Utilization among Female Sex Workers in Thailand: Assessing the Value of the Health Belief Model", *Californian Journal of Health Promotion*, Vol.4, No.4, pp.18-23.
- Bunnell R.E., et al. (1999), "HIV-1 Seroprevalence among Childbearing Women in Northern Thailand: Monitoring a Rapidly Evolving Epidemic", *AIDS*, Vol.13, pp.509-15.
- CARE (2000), *HIV/AIDS and Mobile Population: Workshop Report*, CARAM Thailand (CARE Rak Thai Foundation), Bangkok.
- Chalermchan W. & Detchareon V. (2001), "National External Quality Assessment Scheme for Anti-HIV Testing in Thailand", Paper Presented at 8th National AIDS Conference, 11-13 July, Bangkok.
- Chamrotrithirong et al., (1997), *Review of the 100% condom promotion programme*, Institute for Population and Social Research, Mahidol University.
- Chancharoen K & Kuanusont C. (2000), *Resource Utilization of HIV/AIDS in Thailand*, XIII International Conference on AIDS (Abstract WeOrD543), Durban.
- Chanmanee P. (2002), "Assessment of the HIV/AIDS Surveillance Reporting System in Nakornnayok Province 2001", *AIDS Situation Analysis*, Monograph of MoPH., ISBN 974-9593-46-4, pp.192-206
- Chansiriyakorn, S., et al. (2002), *Result of Surveillance among Babies Born from Mothers with HIV in Four Pilot Provinces: January 1, 2001 - April 30, 2002*, Ministry Of Public Health, Bangkok (in Thai)
- Chantavanich S., et al. (2001), *HIV/AIDS among Migrant Population at the Thai-Burmese Border: Mae Sot and Mae Sai*, Institute of Asian Studies, Chulalongkorn University, Thailand, (in Thai).
- Chantavanich S. (2000), *Mobility and HIV/AIDS in the Greater Mekong Sub-region*, Asian Research Center for Migration, Institute of Asian studies, Chulalongkorn University, Thailand.
- Chantcharas P., et al. (1992), "Behavioral Risk Survey among Intravenous Drug Users: Men at Sexually Transmitted Diseases Clinic and Female Sex Workers, December 1990", *Thai AIDS Journal*, Vol.4, No.2, pp.64-72.
- Charusomboon W. (1999), "National AIDS Policy and Role of Government in AIDS Control Program", in Boonmongkol P., Pradubmook P. & Reaungson S. (eds.), *State of the Art Review in Socio-economic and Behavioral Research on AIDS*, Mahidol University, Rungsang Publication House, Bangkok.
- Choopanya, et al. (2002), "Incarceration and Risk for HIV infection among Injection Drug Users in Bangkok", *Journal of AIDS*, Vol.29, No1, pp.86-94.
- Cohen J. (2003a), "Asia – The next frontier for HIV/AIDS: Two hard-hit countries Offer Rare Success Stories: Thailand & Cambodia", *Science*, Vol.301 (19 September), pp.1659-61.
- Cohen J. (2003b), "Asia – The next frontier for HIV/AIDS: Thailand's Do-it-yourself Therapy", *Science*, Vol.301 (19 September).
- Chuprapawan, et al. (2003) *Report of Cause of Death of Thai Population during 1997-1999 in 16 Provinces in Thailand*, Health System Research Institute, Bangkok, Thailand.



- Denduang N. & Charusomboon W. (1993), *Role of NGOs in Prevention and Control of HIV/AIDS*, Mahidol University, Bangkok, Thailand, Mimeograph (in Thai).
- Ford N., et al. (2004), "The Role of Civil Society in Protecting Public Health over Commercial Interests: Lessons from Thailand, *Lancet*, February 14, pp. 360 and 560-3.
- Gray A. & Punpuing S. (1999), *Gender, Sexuality and Reproductive Health in Thailand*, Publication No. 232, Institute for Population and Social Research, Mahidol University.
- Guimaraes T., et al. (2001), "High Prevalence of Hepatitis C Infection in a Brazilian Prison: Identification of Risk Factors for Infection", *Brazilian Journal of Infectious Diseases*, Vol. 5, No.3, pp.111-18.
- Hammet T.M., Harmon M.P. & Rhodes W. (2002), "The Burden of Infectious Diseases among Inmates of and Releases from US Correctional Facilities, 1997", *American Journal of Public Health*, Vol.92, No.11, pp. 1789-94.
- Hanenberg R. & Rojanapithayakorn W. (1997), "Prevention as Policy: How Thailand Reduced STD and HIV Transmission", *AIDSCAP*, Vol.3, No.1 see also [<http://www.FHI.org/en/HIVAIDS/Publications/Archive/articles/AIDScaptions/volume3no1/PreventionAndPolicyThailand.htm> – Accessed 25 February 2004]
- Henry K. (1997), "Policy Profile: HIV/AIDS Policy Lessons: Learning from Thailand", *AIDSCAP*, Vol.3, No 3. See also [<http://www.fhi.org/en/HIVAIDS/Publications/Archive/articles/AIDScaptions/volume3no3/LearnFromThailand.htm>]
- Im-em W. & Suwannarat G. (2002), *Response to AIDS at individual, household and community levels in Thailand*, UNRISD, Geneva.
- Im-em W. & Puanjsaijai (1999) *Household Resources Allocation and Response toward AIDS-Related Illnesses*, Institute for Population and Social Research, Mahidol University, Nakhon Pathom, Thailand.
- Jenkins R.A., et al. (2002), "Condom Use among Vocational School Students in Chiang Rai, Thailand", *AIDS Education Prevention*, Vol.14, No.3 (June), pp.228-45.
- Jitsuchon, S. (2001), *Thailand's Economic Growth: A 50 Year Perspective 1950-2000*, Thailand Development Research Institute, Bangkok. See also [[http://www.gdnet.org/pdf/draft\\_country\\_studies/ThailandLong-TermGrowth.pdf](http://www.gdnet.org/pdf/draft_country_studies/ThailandLong-TermGrowth.pdf)]
- Kaewmarin W. & Duangkaew A. (2003), "Sentinel Surveillance for HIV Risk Behavior among the 5th Grade Male Students, *AIDS Situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp.25-33 (in Thai)
- Kaewmarin W (2002), "Assessment of the HIV/AIDS Surveillance Reporting System in Maharakarm Province, *AIDS Situation Analysis*, Monograph of MoPH., ISBN 974-9593-46-4, pp.99-108.
- Kakwani N. & Pothong J. (1999), "Impact of Economic Crisis on the Standard of Living in Thailand", *Newsletter on Indicators of Well-being and Policy Aanalysis*, NESDB, Vol.3, No.1 (January).
- Kanchanaburi Provincial Health Office (2003), *Information on HIV/AIDS monitoring among foreign migrant, personal communication*, Kanchanaburi Province, Thailand.
- Kanshana S., et al. (2000), "Implementing Short-course Zidovudine to Reduce Mother-infant HIV Transmission in a Large Pilot Program in Thailand", *AIDS*, Vol.14, pp.1617-23.
- Kanshana S. & Simonds R.J. (2002), "National Program for Preventing Mother-to-child HIV Transmission in Thailand: Successful Implementation and Lessons Learned", *AIDS*, Vol.16, pp.953-59.
- Khayata K. & Changthong D. (2003), "Sentinel Surveillance for HIV Risk Behavior among Male Industrial Labour, *AIDS Situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp.11-16 (in Thai).

- Knodel J. & Vanlandingham M. (2003), "Return Migration in the Context of Parental Assistance in the AIDS Epidemic: The Thai Experience", *Social Science & Medicine*, Vol.57, pp.327-42.
- Knodel J., et al. (2001), "Older People and AIDS: Quantitative Evidence of the Impact in Thailand", *Social Science & Medicine*, Vol.52, pp.1313-27.
- Krailert R., Saechee S. & Chanmanee P. (2003), "Sentinel Surveillance for HIV Risk Behavior among the 5th Grade Female Student", *AIDS Situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp.34-40 (in Thai).
- Krailert L. & Lertsukchai S. (2002), "HIV Situation among Pregnant Women Attending ANC in Seven Provinces in Upper part of the Southern Region: 1996-2000", *Monthly Epidemiological Surveillance Report*, 33 (Supplementay 2), pp.74-82 (in Thai).
- Kunawararak P., Natpralao C. & Beyrer C. (1996), "HIV Incidence among Male Commercial Sex Workers in Northern Thailand: 1989-1995", Abstract, 6th National AIDS Seminar, pp.74. Bangkok, Thailand.
- Kunawararak P., et al. (1995), "The Epidemiology of HIV and Syphilis among Male Commercial Sex Workers in Northern Thailand", *AIDS*, Vol.9, No.5 (May), pp.517-21.
- Lallemant M. et al. (2000), "A Trial of Shortened Zidovudine Regimens to Prevent Mother-to-child Transmission of Human Immunodeficiency Virus Type 1", *New England Journal of Medicine*, No.343, pp.982-91.
- Legal Affairs Division (2000) *The Narcotic Act B.E. 2522 (1979)*, Ministry of Justice, Bangkok.
- Lertpiriyasuwat C., Pliapat T. & Jenkins R.A. (2003), "A Survey of Sexual Risk Behaviour for HIV Infection in Nakhonsawan, Thailand: 2001", *AIDS*, Vol.17, pp.1969-76.
- Lertaveepornkul K. (2001) AIDS response in the workplace. M.A Thesis in Social Welfare, Faculty of Social Welfare, Thammasat University, Bangkok, Thailand.
- Limanonda B. (1997), *Commercial sex related to cross border travel and AIDS*, IPS publication No.253/40, Bangkok Institute of Population Studies, Chulalongkorn University. Thailand.
- Limsuwan A., Kanapa S. & Siristonapun Y. (1986), "Acquired Immune Deficiency Syndrome in Thailand: A report of Two cases", *Journal of the Medical Association of Thailand*, Vol.69, No.3, pp.164-65.
- London A.S., VanLandingham M.J. & Grandjean N. (1997), "Socio-demographic Correlates, HIV/AIDS-related Cofactors and Measures of Same-sex Sexual Behaviour among Northern Thai Male Soldiers", *Health Transition Review*, Vol.7, No.1 (April), pp.33-60.
- Man-aj C., et al. (2003), "Condom Use among Direct and Indirect Sex Workers in Chiangmai Province", Paper Presented at 9th National AIDS Conference, 7-9 July, Thailand, (in Thai).
- Mann J., Tarantola J.M.D. & Netter W.T. (eds.) (1992), *AIDS in the World: A Global Report*, Harvard University Press, Cambridge, Mass.
- McCamish M., Storer G. & Carl G. (2000), "Refocusing HIV/AIDS Interventions in Thailand: The Case for Male Sex Workers and Other Homosexually Active Men", *Culture, Health and Sexuality*, Vol.2, No.2 (April-June), pp.167-82.
- Medicins Sans Frontieres (2003), *Drug Patents Under the Spotlight*, SRO-Kundig, Geneva.
- Ministry of Public Health (2003), *AIDS situation in Thailand*. Monograph, ISBN 974-9593-6, pp.1-5, Bureau of Epidemiology, Department of Disease Control, Bangkok.

Ministry of Public Health, Chulalongkorn University, (2003) *Statistic Report FY 1980-2002: Drug Dependence Information System Treatment Population*, Department of Medical Services, and Institute of Health Research, Institute of Health Research, Chulalongkorn University, Thailand.

Ministry of Public Health (2002) *Burden of Disease and Injuries in Thailand: Priority Setting For Policy*. The Thai Working Group on Burden of Disease and Injuries. Printing House of the War Veterans Organization of Thailand, Bangkok, Thailand.

Ministry of Public Health, (2001) *Report on Cost-Effectiveness Study of Prevention Mother-to-Child Transmission in 13 Provinces in Northeastern and Northern Provinces*, Health Promotion Office, International Health Policy Program, September, Bangkok

Ministry of Public Health (2000a), *Thailand Health Profile 1997-1998*, Bangkok, Thailand.

Ministry Of Public Health, (2000c), *Evaluation Of Voluntary Counselling And Testing In The National Prevention Of Mother-To-Child Transmission Programme*, Department of Health, Bangkok, October

Ministry of Public Health (1998), *Report on HIV sero-sentinel surveillance from 1989-1997*, Epidemiology Division, Nonthaburi, Thailand.

Ministry of Public Health, (various years: 1997-2003) , *Survey report on Number of Commercial Sex Entertainment and Commercial Sex workers from the STIs Working Group*, Bureau of AIDS, TB and STIs, Department of Disease Control, Bangkok.

Ministry of Public Health, (1996), *Annual report of Sexually Transmitted Infections Working Group*, Bureau of AIDS/ TB/STIs., Department of Disease Control, Bangkok.

Ministry of Public Health , (1989) *Weekly Epidemiological Report, Vol.20, No.13*, pp.155-160 Bureau of Epidemiology, Department of Disease Control, Bangkok. (in Thai)

Ministry of Public Health , (1987) *Weekly Epidemiological Report, Vol.18 , No.23*, pp.265-267 Bureau of Epidemiology, Department of Disease Control, Bangkok. (in Thai) (IBID)

Ministry of Public Health , (1987) *Weekly Epidemiological Report, Vol.18 , No.25*, pp.289-291, Bureau of Epidemiology, Department of Disease Control, Bangkok. (in Thai) (IBID)

Ministry of Public Health , (1985) *Weekly Epidemiological Report, Vol.16, No.15*, pp.177-178 Bureau of Epidemiology, Department of Disease Control, Bangkok. (in Thai) (IBID)

Ministry of Public Health, (1984) *Weekly Epidemiological Surveillance Report, Vol.15, No.39*, pp. 509-512. Bureau of Epidemiology, Department of Disease Control, Bangkok. (in Thai) (IBID)

Mullani L.C., Maung C. & Beyrer C. (2003), "HIV/AIDS Knowledge, Attitudes and Practices among Burmese Migrant Factory Workers in Tak Province: Thailand", *AIDS Care*, Vol.15, No.1, pp.63-70.

National Statistical Office (2002), *Public Opinion Survey on Public Relation about HIV/AIDS 2001*, Mimeograph, Thailand.

National Statistical Office (1999), *Public Opinion Survey on Public Relation about HIV/AIDS 1998*, Mimeograph, Thailand.

Nelson et al (1998) *HIV infection in young men in Northern Thailand*, 12th World AIDS Conference, Geneva. See also Nelson et al (1996) *New England Journal of Medicine*, No.335, pp.297-303.

- Ou C-Y., et al. (1993), "Independent Introduction of Two Major HIV-1 Genotypes into District High-risk Populations in Thailand", *Lancet*, No.341 (8854), pp.1171-74.
- Panakitsuwan S. (2001) Attitudes toward PWHA in workplaces in Thailand: an Analysis of the TBCA survey Results, M.A Thesis, Population and Reproductive Health Research, Mahidol University.
- Pattani Provincial Health Office (2003), "HIV Monitoring System among the Crew of Deep Sea Fishing Boat and Foreign Labour Force", Internal document, Pattani, Thailand. (in Thai)
- Paz-Bailey G. et al. (2003), "Risk Factors for Sexually Transmitted Diseases in Northern Thailand", *Sexually Transmitted Diseases*, Vol.30, No.4 (April), pp.320-26.
- Perngmark P, Celentano D. & Kawichai S. (2003), "Needle Sharing among Southern Thai Drug Injectors", *Addiction*, Vol.98, pp.1153-61.
- Perngmark P, Celentano D. & Kawichai S. (2003), "Risk Factors for HIV Infection among Drug Injectors in Southern Thailand", *Drug and Alcohol Dependence*, Vol.71, pp.229-38.
- Perngparn U. & Dheerarat L. (2000), "HIV Infection among Thai and Hill Tribe Drug Addicts Attending the Northern Drug Dependence Treatment Centre: 1989-1998", Proceeding of the 2000 Thai National Symposium on Population Studies, 23-24 November, Thailand, pp.251-264
- Phanuphak P, Cooper D.A. & Lange J.M. (1998), "Clinical Trials in Asia", *AIDS*, Vol.12, Supplementary B, pp.163-67. (AIDS. 1998;12 Suppl B:S163-7)
- Phanuphak P. et al. (1985), "A Report of Three Cases of AIDS in Thailand", *Asian Pacific Journal of Allergy and Immunology*, Vol.3, pp.195-99.
- Phoolchareon W., et al. (1999), "Evolution of HIV/AIDS Control in Thailand: Model for Conceptualization of Health Promotion", Nonthaburi, Health System Research Development, Thailand.
- Phoolchareon W. (1998), "HIV/AIDS Prevention in Thailand: Success and Challenges", *Science*, Vol.280 (5371): pp 1873-4, 19 June.
- Pinnayanon et al. (1997) The Economic Impact of HIV/AIDS Mortality on Households in Thailand. In Bloom and P. Godwin (Eds.). *The Economic of HIV and AIDS: The Case of South and South East Asia* (pp.53-101). Delhi, India: Oxford University Press
- Plipat T., et al. (1995), "Completeness in Reporting the HIV Infected and AIDS Cases to HIV/AIDS Registry of Payao Province", *Weekly Epidemiological Surveillance*, Report 26 (36) Vol.26 ,No.36, pp.457-460 and 467-471 (in Thai).
- Peak A. (2001), "Drug Use and HIV/AIDS in Thailand in the Year 2000", in Reid G. & Costigan G. *Revisiting 'The Hidden Epidemic' – A Situation Assessment of Drug Use in Asia in the Context of HIV/AIDS Center for Harm Reduction*, The Burnet Institute, Australia, pp.208-219.
- Porapakkham Y., Pramanpol S. & Atipoth S. (1995), *HIV/AIDS Policy: Thailand Case Study 1984-1994*, Mahidol University, P.A. Living Co., Ltd., Bangkok..
- Poshyachinda P, Udomprasertgul V. & Danthamrongkul V. (1993), "Reappraisal of HIV/AIDS Epidemic in Thailand", Paper prepared for the 5th International Conference on Thai Studies, July 5-9, Centre for Southeast Asian Studies, School of Oriental and African Studies, London.
- Poshyachinda P. & Danthamrongkul V. (1996), "Shifting borders, shifting identities: New perspectives on Thai homosexuality", Presentation at Thai Studies 6th International Conference Themes III Family, Community and Sexual Sub-Cultures in the AIDS Era, 14-17 October, Chiang Mai, Thailand.

Poshyachinda V. & Danthamrongkul V. (1998), "Monitoring Human Immunodeficiency Viral Infection and Acquire Immunodeficiency Syndrome in Thailand", Paper prepared Workshop: Towards Improved Monitoring and Evaluation of National HIV Prevention, AIDS Care and STD Control Programmes sponsored by UNAIDS, WHO, USAID and MEASURE Evaluation, November, Nairobi.

Poshyachinda V., Perngparn U. & Danthamrongkul V. (1995), "Thai-Malaysian Trans-border Migration and HIV Transmission: The Case of Sex Tour and Drug Dependence Population", Report of the Technical Consultation on Information Regarding Population Movement and HIV/AIDS, 24-26 May, sponsored by WHO, Asian Research Center for Migration, Institute of Asian Studies at Chulalongkorn University, Thailand.

Poshyachinda V. (1993), "Drug Injecting and HIV Infection among the Population of Drug Abusers in Asia", *Bulletin on Narcotics*, Vol.XLV, No.1. pp 77-90.

Poshyachinda V. (1991), *HIV Transmission among Intravenous Injecting Heroin Abusers and Concept of Prevention*, Institute of Health Research, Chulalongkorn University.

Poshyachinda V. (1989), "Recent Changes in Needle Sharing among Intravenous Injecting Heroin Abusers in Thailand", Monograph Report of Consultation Group on Prevention of Drug Infection, WHO, Geneva.

Poshyachinda V. (1990), "Overview of Human Immunodeficiency Virus Infection in Thailand: A Concise Review of Status and Epidemiology", Paper prepared for Working Group on HIV Infection and Drug Abuse in the Western Pacific Region, 15-19 October, Kuala Lumpur.

Pradabmook P. (1996), "Civic Movement in Context of Civil Society and Health Development: An Analysis", Paper presented at Annual Conference of Health System Research Institute on Reform for Health: New Strategy for Health System Development, 1-2 February, Thailand. (in Thai).

Pramualratana A. et al. (1995), "Assessment of the Potential Spread of Control of HIV among Cross Border Population along the Thai-Cambodian Border", Institute for Population and Social Research Publication No.191 (June), Mahidol University, Thailand.

Prescott N. et al. (1996), "Formulating Rational Use of Anti-retrovirals in Thailand", Unpublished Abstract MoB 533, 11th International Conference on AIDS, July 7-12, Vancouver.

Rayong Provincial Health Office (2003) "HIV monitoring system among foreign labour: 1997-2002", Internal document, Rayong, Thailand.

Rayong Provincial Health Office (2003), Information on HIV/AIDS monitoring among foreign migrant, personal communication, Rayong Province, Thailand.

Razak M.H. et al. (2003), "HIV Prevalence and Risks among Injection and Noninjection Drug Users in Northern Thailand: Need for Comprehensive HIV Prevention Programs", *Journal of Acquired Immune Deficiency Syndromes*, Vol.33, pp.259-66.

Reid G. & Costigan G. (2002), *Revisiting 'The Hidden Epidemic' – A Situation Assessment of Drug Use in Asia in the Context of HIV/AIDS Center for Harm Reduction*, The Burnet Institute, Australia.

Rhucharoenpornpanich O., (2004) Measuring Impact of HIV/AIDS in Thailand: Current and Future Scenarios for National and Sub-National Level.

Rhucharoenpornpanich O., (2001), The impact of HIV/AIDS epidemic on the Thai Population: A focus on the epidemic impact on children. Ph.D. Thesis, Population and Reproductive Health Research, Mahidol University.

- Rhucharoenpornpanich O. & Chamrathirong A. (1999), "Demographic Impact of AIDS on the Thai Population", Institute of Population and Social Research, Mahidol University, Nakhon Pratom, Thailand. See also [<http://www.bmaaidcenter.or.th/aidsbase/demographic.htm>. Accessed 9 March 2004]
- Rujanavet, B. & Chinchotkasem, D. (1995), Non-Governmental Organizations: AIDS Activities in Thailand, Asian Institute of Primary Health Care Development, Mahidol University, Salaya, Nakornpratom, Thailand.
- Ruksakulkarn P. (1991), "Epidemiologic Study of Human Immunodeficiency Virus Infection in Patients of Sexually Transmitted Diseases Clinic at Sanpatong Hospital", *Thai AIDS Journal*, Vol.3, No.1, pp.31-36 (in Thai).
- Rumakom, Patchara, (2002), Premature Mortality due to HIV/AIDS in the Thai Population. Ph.D Thesis, Doctor of Philosophy (Demography), Institute for Population and Social Research, Mahidol University, Thailand.
- Ruttarasarn S. (1993), "AIDS Counseling Services in an Anonymous Clinic, Nakhon Sri Thammarat", *Journal of Health Science*, Vol.2, No.4 (Oct-Dec), pp.250-68 (in Thai).
- Sakaew Provincial Health Office, "Assessment of the HIV/AIDS Surveillance Reporting System in Sakaew Province" Internal document, Sakaew, Thailand.
- Sangwonloy O., et al. (2001), "Assessment of the HIV/AIDS Surveillance Reporting Systems of Four Provinces: 1999-2001", *Thai AIDS Journal*, Vol.13, pp.117-30.
- Schmidt, A. (2004), "HIV/AIDS Prevention in Prisons and Beyond - Seizing the Opportunity for Public Health", Discussion Paper, Copy provided by the author.
- Shaffer N., et al. (1999), "Short-course Zidovudine for Perinatal HIV-1 Transmission in Bangkok, Thailand: A Randomised Controlled Trial", *Lancet*, 1999 Mar 6; Vol.353 (9155):773-80
- Sinprajakphon J., et al. (2002), "Assessment of the HIV/AIDS Surveillance Reporting System in Pattani Province: 2001", *Monthly Epidemiological Surveillance Report*, Vol.33, No.33 (Supplementary 1) (March), pp.1-12.
- Sirinak C., et al. (2003), "Barrier to Success of the 100% Condom Program in Greater Bangkok", Paper presented at 9th National AIDS Conference, 7-9 July, Thailand .
- Sirinirund P., Poshyachinda V. & Danthamrongkul V. (2003), "Model Development of Comprehensive HIV/AIDS Prevention and Care in Thailand: Concept Master Plan and Summary of Output and Outcome, Monograph Report, ISBN 974-13-2439-1, Phayoa Provincial Health Office and Institute of Health Research, Chulalongkorn University June
- Sittitrai et.al, (1990), *Survey of Partner Relations and Risk of HIV Infections*, Thai Red Cross Society, Thailand.
- Songkhla Provincial Health Office, (2002) "HIV/AIDS Monitoring among the Labour Force of the Deep Sea Fishing Boat" Internal document report, Songkhla province, Thailand.
- Srithanaviboonchai K., et al. (2002), "HIV-1 in Ethnic Shan Migrant Workers in Northern Thailand", *AIDS*, Vol.16, No.6, pp.929-31.
- Subbarao S., et al. (1998), "HIV Type 1 in Thailand, 1994-1995: Persistence of Two Subtype with Low Genetic Diversity", *AIDS Research and Human Retroviruses*, Vol.14, No.4, pp.319-27.
- Sukasem C. & Yoodkaew P. (2003), "Sentinel Surveillance for HIV Risk Behavior among Army Conscripts", *AIDS Situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp.6-10 (in Thai).
- Suthamusig G. & Phunsub T. (2003), "Sentinel Surveillance for HIV Risk Behavior among Pregnant Women Attending ANC", *AIDS situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp. 41-47 (in Thai).

- Suwan P., et al. (1998), *Life Skill for Developing Healthy Behavior in Preventing Non-Communicable Disease among Children and Youth*, Department of Medical Services, Ministry of Public Health, Bangkok (in Thai).
- Suwannagool S. & Kogwanthanakun S. (1988), "Prevalence of HIV Infection in Population at Risk in Thailand" *Journal of Infectious Diseases and Antimicrobial Agents*, Vol.5, No.2, pp.47-55 (in Thai).
- Thai Business Coalition on AIDS (2002), *Good Practice: Leading Companies in AIDS Management in the Workplace*, Thai Business Council, Horizon, Population Council and USAID, Bangkok, Thailand
- Thai Working Group on HIV/AIDS Projection (2001), *HIV/AIDS Projections for Thailand: 2000–2020*, March 2001, Bangkok.
- Thaineua V., et al. (1998), "From Research to Practice: Use of Short Course Zidovudine to Prevent Mother-to-child HIV Transmission in the Context of Routine Health Care in Northern Thailand", *Southeast Asian Journal of Tropical Medicine and Public Health*, Vol. 29, pp.429-42.
- Thai Red Cross society, National Blood Centre.(1990-2002) HIV prevalence in blood donor, Internal document, Thailand
- Thai Red Cross society, National Blood Centre, (1986) *Annual Report of National Blood Centre*, Thailand
- Thaisri H., et al. (2003), "HIV Infection and Risk Factors among Bangkok Prisoners, Thailand: A Prospective Cohort Study", *BMC Infectious Diseases*, Vol.3, No.1, p. 25, October 28, 2003
- Thamnavaprut T., et al. (1994), "Result of Aids Counseling by Health Personnel", Report to the 3rd Technical Meeting of Ministry Of Public Health, 24-26 August, (in Thai).
- Tharawan K., et al. (2003), "Knowledge and Perceptions of HIV among Peripartum Women and among Men Whose Wives are of Reproductive Age, Northern Thailand", *Contraception*, Vol.68, pp.47-53.
- Thepanarong W. & Songkhloa M. (2003), "Sentinel Surveillance for HIV Risk Behavior among Female Industrial Labour", *AIDS Situation in Thailand*, Monograph of MoPH., ISBN 974-9593-6, pp.17-24 (in Thai).
- Thepanarong W. (2002), "Assessment of the HIV/AIDS Surveillance Reporting System in Rayong Province 2001", *AIDS Situation Analysis*, Monograph of MoPH., ISBN 974-9593-46-4, pp.109-17.
- Toaprasert Y. (2000), "The Remedies of AIDS Problem through Community Action", Mimeograph, AIDS Division, Ministry of Public Health and Rajabhat Institute Chiang Rai Province (May).
- Tongthai V., et.al., (1993), *Media Effectiveness Survey*, Mahidol University, Thailand.
- Tongthai V. & Pitakmahagate O. (1994), "Knowledge, Perceived Information and Behavior in Relation to HIV/AIDS: Project on Surveying Effectiveness of AIDS Communication on Behavior and Value: 1993", Commissioned Paper (in Thai), Institution on Population and Social Research, Mahidol University.
- Torugsa K., et al. (2003), "HIV Epidemic among Young Thai Men: 1991–2000", *Emerging Infectious Diseases*, Vol.9, No.7 (July), pp. 881-3.
- Traisupa A, et al. (1990), "Seroprevalence of Antibody to Human Immunodeficiency Virus HIV-1 in a High Risk Group in Four Provinces with Tourist Attractions", *Thai AIDS Journal*, Vol.2, No.2, pp.57-63 (in Thai).
- Tuchinda S, Chotpitayasunondh T. & Teeraratkul A. (1998), "Knowledge, Attitudes and Practices of Senior High School Students Regarding Immunodeficiency Virus Infection", *Journal of the Medical Association of Thailand*, Vol.81, No.2, pp.130-35.

UNAIDS (2004a)

UNAIDS (2001), *HIV prevention needs and successes: A Tale of Three countries – An Update on HIV Prevention Success in Senegal, Thailand and Uganda*, UNAIDS, Geneva.

UNAIDS (2000), "Best Practice Documentation on HIV/AIDS for Community Mobilization: Case of Thailand", UNAIDS, January 2000

UNAIDS (1998), *Connecting Lower HIV Infection Rates with Changes in Sexual Behaviour in Thailand: Data Collection and Comparison*, UNAIDS, Geneva.

UNAIDS & AIDS Division, Ministry of Public Health, Thailand (2000), "Evaluation of the 100% Condom Programme in Thailand", UNAIDS Case Study, Geneva

UNAIDS & WHO (2002), *AIDS Epidemic Update: Global Summary of the HIV/AIDS Epidemic*, UNAIDS, Geneva .

UNDP (2001), "HIV/AIDS: Implications for Poverty Reduction", Position Paper.

Ungchusak K., et al (2000), "HIV Serosurveillance in Thailand: Result of the 17th Round, June 1999", *Monthly Epidemiological Surveillance Report*, Vol.31 (Supplementary 1), pp.1-15.

Ungchusak, K., et al. (1990), "Second National Sentinel Seroprevalence Survey of HIV-1 Infection in Thailand (December)", *Thai AIDS Journal*, Vol.2, No.2, pp.45-56.

Ungchusak, K., et al. (1989), "First National Sentinel Seroprevalence Survey of HIV-1 Infection in Thailand (June)", *Thai AIDS Journal*, Vol.1, No.2, pp.57-74.

Vanichaseni S., et al. (1989), "Prevalence Rate of HIV Infection among Drug Users in Narcotics Clinic and Rehabilitation Center of Bangkok Metropolitan Administration", *Thai AIDS Journal*, Vol.1, No.2, pp.75-82 (in Thai).

Van Landingham M., et al. (1998), "In the Company of Friends: Peer Influence on Thai Male Extramarital Sex", *Social Science and Medicine*, Vol.47, No.12. pp.1993-2011.

Van Landingham M. J. & Grandjean N. (1997), "Socio-demographic Correlates, HIV/AIDS Related Cofactors and Measures of Same-sex Sexual Behaviour among Northern Thai Male Soldiers", *Health Transition Review*, Vol. 7, pp 33-60.

Van Landingham M. & Trujillo L. (2002), "Recent Changes in Heterosexual Attitudes, Norms and Behaviours among Unmarried Thai Men: A Qualitative Analysis", *International Family Planning Perspectives*, Vol.28, No.1 (March) pp.6-15.

Vithayasai V. & Vithayasai P. (1990), "An Analysis of HIV Infection Rates in Northern Thailand", *Thai AIDS Journal*, Vol.2, No.3, pp.99-108.

Vorakiphoto S., et al. (1994), "Sexual Adventure of Japanese Female Tourists in Southern Thailand", *Thai AIDS Journal*, Vol.6, No.2, pp.67-76.

Wangroongsarb Y. et al. (1985), "Prevalence of HTLV-III/LAV Antibody in Select Population in Thailand", *Southeast Asian Journal of Tropical Medicine and Public Health*, Vol.16, No.4, pp.517-20.

Wankraioj M. (1998), *Epidemiology of Ten years of AIDS in Chiang Rai Province*, Chiang Rai Provincial Public Health Office, Thailand.

WHO (2001), *HIV/AIDS in Asia and the Pacific Region*, WHO, Geneva.



Wongboonsin, Kua et al, 1997. Demographic Impact of the HIV/AIDS Epidemic in Thailand: Mathematical and Statistical Projections, Institute for Population Science, Chulalongkorn University, Bangkok, Thailand.

Wongchak T., et al. (2003), "Impact of Narcotic Suppression on Pattern of Drug Consumption among Intravenous Drug Users Who are Risk to HIV Infection", Paper presented at 9th National AIDS Conference, 7-9 July, Bangkok, Thailand. (in Thai)

World Bank (2000), *Thailand's Response to AIDS: Building on Success, Confronting the Future*, Oxford University Press, Washington.

World Bank (1999), *Thailand Social Monitor: Challenge for Social Reform*, World Bank, Bangkok. January 1999.

World Bank (1997), *Confronting AIDS: Public Priorities in a Global Epidemic*, Oxford University Press, Washington.

Xu F., et al. (2002), "Incidence of HIV-1 Infection and Effects of Clinic-Based Counselling on HIV Preventive Behaviours among Married Women in Northern Thailand", *Journal of Acquired Immune Deficiency Syndromes*, Vol.29, pp.284-88.





**UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. As they develop local capacity, they draw on the people of UNDP and our wide range of partners.**



**United Nations Development Programme**

Rajdamnern Nok Avenue

Bangkok 10200 Thailand

Tel: (66-2) 288 2130

Fax: (66-2) 280 0556

E-mail: [registry.th@undp.org](mailto:registry.th@undp.org)

Web site: [www.undp.or.th](http://www.undp.or.th)