

Success and new challenges for AIDS control in Thailand

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Introduction

There are many examples of successful AIDS prevention programs in specific populations, but very few show the impact of national policies in slowing the epidemic ([1](#)). Thailand is widely cited as one of those few.

In the mid-1980s, Thailand's AIDS policy was much like that of other countries: case reporting and limited prevention efforts among a few high-risk individuals ([2](#)). Early action was taken to reform the country's blood banks to ensure a safe blood supply ([3](#)). There was a conviction that the HIV epidemic could never spread widely and would be limited to foreigners or those who returned from abroad.

This view was shaken forever in 1988-89. Infection rates among injecting drug users (IDUs) rose from 2% to nearly 40% within a year ([4](#)). In the first wave of nationwide HIV epidemiological surveillance in 1989, 44% of prostitutes in the northern town of Chiang Mai and 0.5% of 21-year-old army conscripts nationally were HIV-positive ([2](#)). When a national survey in 1990 showed that about a quarter of Thai men were commercial sex clients ([5](#)), fears spread that Thailand's AIDS epidemic would be one of the most explosive and perhaps worse than anything seen in sub-Saharan Africa. The first attempts to model the spread of the epidemic, in 1991, suggested that by 2000 more than 3 million of the country's nearly 60 million people would be infected with HIV ([6](#)).

At the turn of the millennium, the worst fears have not come to pass in Thailand, thanks to progressive, effective leadership in AIDS policy. Behavior has changed on a national scale: The demand for commercial sex has declined by half, condom use in brothels has risen to more than 95%, and the number of patients at sexually transmitted disease (STD) clinics has declined by more than 90% ([7](#), [8](#)). According to the most recent estimates, the rate of new infections has dropped by 80% since 1991 ([9](#)). Infection levels among army conscripts declined from a peak of 4% in 1993 to 1% in 1999. Thailand still has a severe AIDS epidemic ([9](#)), with nearly a million people infected to date and an estimated 2% of prime-aged adults currently infected ([10](#)). The Thai Working Group on HIV/AIDS Projections now estimates that had behavior remained unchanged from that in 1990, the infection rate would have reached 10% nationally

by 2000 (9).

The elements of success

What made a difference in Thailand? And are there lessons for improving the effectiveness of the national response in other countries? These are the questions addressed by a recent World Bank study, *Thailand's Response to AIDS: Building on Success, Confronting the Future*. In preparing the study, we consulted widely with government officials, international agencies, nongovernmental organizations (NGOs), and research institutes to get their perspectives on the Thai HIV/AIDS control program and identify both the elements of success and new strategic priorities for AIDS control in light of the changing Thai epidemic (11).

Two features of the Thai response were key to its success. First, the program benefited from strong political commitment from the prime minister's office and mobilization of the public, private, and NGO sectors in the policy dialogue to fight AIDS. In 1991, under the leadership of Prime Minister Anand Panyarachun, responsibility for coordinating AIDS policy was placed with the Office of the Prime Minister (OPM) and a multisectoral National AIDS Prevention and Control Committee, chaired by the prime minister. Although the Ministry of Public Health was still a key player, this brought AIDS to the attention of other ministries, facilitated the involvement of NGOs, and got the OPM and the National Economic and Social Development Board directly involved in AIDS policies. It greatly expanded the national dialogue on AIDS and raised its importance on the policy agenda.

The second key element was strategic. Although Thailand has had multiple "waves" of the AIDS epidemic in different population groups, the "engine" is sexual transmission associated with commercial sex, directly generating infections among sex workers and their clients and indirectly among their spouses and children. The government's strategy was to focus on changing the riskiest behaviors among those most likely to spread HIV--sex workers and their clients--and to reduce the demand for commercial sex. This was achieved through two main programmatic areas: a massive public information campaign through the mass media, different ministries, and the private sector in the workplace; and a program to promote universal use of condoms in commercial sex. The 100% Condom Program involved collaboration at the provincial and local levels between public health officials, brothel owners, the local police, and sex workers to ensure compliance (7). This approach was pragmatic: It encouraged condom use to prevent HIV transmission rather than attempting to suppress commercial sex, which at any rate was already illegal. Had the policy instead attempted to close brothels, the authorities would have lost an important channel for reaching sex workers and their clients with public health interventions. To be sure, there were many other programmatic elements of the Thai response--a virtual explosion of activities--but these two components were key to its success in changing behavior on a national scale.

Not all countries are fortunate enough to have the strong political commitment that Thailand had, but the World Bank report highlights several lessons from the Thai experience that may prove useful even when leadership is weaker:

- *Epidemiological surveillance is a critical tool for generating public awareness, political commitment, and action.* The HIV infection rate can rise quickly, years before the

infected actually fall ill. It is difficult for leaders to deny the existence of an epidemic in the face of compelling epidemiological evidence.

- *Effective pilot programs can lead policy to the right outcomes.* The 100% Condom Program proved effective on a pilot basis and then was expanded nationally. This pilot program provided compelling evidence to policy-makers that effective solutions were available.
- *Nongovernmental organizations can play a critical role in ensuring nondiscrimination and respect for human rights and sustaining progressive policies of behavior change.*
- *A nationwide strategy that reduces transmission among those most likely to spread HIV--in this case, those engaging in commercial sex--can have a great impact on slowing an AIDS epidemic, even if enacted late.* This strategy not only reduced transmission of HIV between sex workers and their clients but indirectly reduced transmission of HIV from clients to their wives and children.
- *Good STD services are not insurance against an AIDS epidemic, but they were very important to the success of the 100% Condom Program.* Thailand has one of the best networks of public STD clinics in Southeast Asia, yet this alone was not sufficient to prevent a sexually transmitted AIDS epidemic ([12](#)). It wasn't until condom use increased and the demand for commercial sex dropped that the numbers of STDs and HIV infections were both reduced. However, the STD clinics were a vital contact point for sex workers in terms of obtaining information, health checkups, and condoms, and the number of male STD patients was a check on the compliance of the brothels to 100% condom use.

Strategic priorities for the next phase of the Thai epidemic

Despite Thailand's success in slowing the spread of HIV, the AIDS epidemic is far from over. Nearly 1 million people have been infected, and 700,000 Thais are living with HIV/AIDS ([9](#)). The number of new cases is lower--an estimated 29,000 per year--but the early high infection rates among sex workers and their clients have ensured further spread to their spouses and children. At the same time, a growing number of those infected with HIV in the past are developing opportunistic infections that are symptomatic of AIDS and are in need of health care. Thailand has thus entered into a new phase of its epidemic. Based on consultation with key informants in Thailand and its own expertise, the World Bank report team identified three strategic priorities for government that would have the largest impact on the epidemic in the whole population if additional resources were made available.

First, high rates of condom use during commercial sex should be sustained and extended to other high-risk groups with less access and lower usage rates. Although infection rates have declined among brothel-based sex workers, as of 1999, an estimated 17% of them were HIV-positive nationally. The Thai Working Group on HIV/AIDS Projections has demonstrated that the epidemic could again take off quickly if condom use were to decline. There are other

groups--"indirect" sex workers in massage parlors, bars, and restaurants; non-Thai sex workers; male sex workers; men who have sex with men; fishers; and prisoners--who are at high risk of becoming infected and transmitting the infection to others and have low rates of condom use.

Second, a major new initiative should be launched to prevent transmission by injecting drug use. Infection rates among IDUs are extremely high, between 40% and 50%. As many as one in four new adult infections in Thailand is now via injecting drug use. Unfortunately, the pragmatic approach used to reduce heterosexual transmission of HIV via commercial sex, which is also illegal, has not been followed for IDUs, who remain highly stigmatized and are frequently incarcerated. Without action, IDUs will continue to be a reservoir of HIV infection and will pass HIV not only to other IDUs but also to their sexual partners and children.

Third, there's an urgent need to address treatment issues for people living with HIV/AIDS. According to the Thai Working Group on HIV/AIDS Projections, 55,000 people developed AIDS in 2000, and an equal number died from AIDS (9). Among officially reported cases, a very large share of AIDS patients are diagnosed with preventable and treatable infections, such as tuberculosis, *Pneumocystis carinii* pneumonia, and fungal infections. The implication is that there are many cost-effective options for prophylaxis and treatment of opportunistic infections that have not been implemented on a large scale for AIDS patients, for whatever reason. The report calls for a systematic evaluation of the availability of and access to basic health care for AIDS patients, and for assuring universal access to prevention and treatment of opportunistic infections. Combination antiretroviral therapies are in limited use in Thailand and remain expensive. The therapies in use (often dual therapy) are of uncertain benefit. The report calls for a continuing study of the costs, effectiveness, affordability, sustainability, and equity of antiretroviral and other advanced treatment therapies in Thailand as the basis for informed public policy decisions. However, until the problem of access to basic care for AIDS patients is resolved, it is unlikely that more advanced treatment regimens could be effectively applied.

Sustaining the response

Thailand has been successful in slowing its AIDS epidemic, but the epidemic is not over; it has entered a new phase. Even in countries with successful AIDS prevention programs, reports are emerging of increases in risky behavior, due either to the perception that AIDS is a chronic manageable disease or to a failure to sustain prevention or both (13 -17) Will Thailand be an exception?

If there's one thing we have learned from this epidemic, it's that one can never let up on prevention efforts. Yet there are already signs of complacency in Thailand. The success of the program to date has contributed in part to a perception that the epidemic has been contained. Public expenditure on the national AIDS program has declined by 28% since 1997 (11). Prevention accounted for only 8% of the total HIV/AIDS program budget in 2000, about 5 U.S. cents per capita. The number of free condoms distributed by the government declined by about half between 1996 and 1999. There are signs that the condom budget is on the rise again, but this alone will not be sufficient to sustain the response and expand prevention to address new critical areas. The renewed commitment to prevention will be more difficult because it will require innovative, pragmatic approaches to encourage safer behavior among highly stigmatized

populations not reached before. It will also occur in the face of dramatic increases in the financing of medical care for people with AIDS. This new phase is the ultimate test of Thailand's institutions and political resolve in fighting the epidemic and an opportunity to demonstrate to the world a new model of an effective, sustained response.

References and notes

1. M. Ainsworth and W. Teokul, *Lancet* **356**, 55 (2000). [PubMed](#)
2. W. Phoolcharoen, U. Kumnuan, W. Sittitrai, T. Brown, "Thailand: lessons learned from a strong national response to HIV/AIDS" (AIDS Division, Communicable Disease Control Department, Ministry of Public Health, Bangkok, Thailand, 1998).
3. P. Sawanpanyalert, W. Uthavivoravit, H. Yanai, K. Limpakarnjanarat, T. D. Mastro, K. E. Nelson, *Transfusion* **36**, 242 (1996). [PubMed](#)
4. B. Weniger *et al.*, *AIDS* **5** (suppl 2): S71 (1991). [No abstract available in PubMed]
5. W. Sittitrai, P. Phanuphak, J. Barry, T. Brown, "Thai sexual behavior and risk of HIV infection: A report of the 1990 Survey of Partner Relations and Risk of HIV Infection in Thailand" (Program on AIDS, Thai Red Cross Society and Institute of Population Studies, Chulalongkorn University, Bangkok, Thailand, 1992).
6. M. Viravaidya, S. A. Obremsky, and C. Myers, in *Economic implications of AIDS in Asia*, D. E. Bloom and J. W. Lyons, Eds. (United Nations Development Program, New Delhi, India, 1993), chap. 2.
7. A. Chamrathirong, V. Thongthai, W. Boonchalaksi, P. Guess, C. Kanchanachitra, A. Varangrat, "The success of the 100% condom promotion programme in Thailand: Survey results of the evaluation of the 100% condom promotion programme" (Institute for Population and Social Research, Mahidol University, Nakhonprathom, Thailand, 1999).
8. W. Rojanapithayakorn and R. Hanenberg, *AIDS* **10**, 1 (1996). [No abstract available in PubMed]
9. Thai Working Group on HIV/AIDS Projection. "Projections for HIV/AIDS in Thailand: 2000-2020" (AIDS Division, Department of Communicable Disease Control, Ministry of Public Health, Nonthaburi 11000, Bangkok, Thailand, 2001). [Available intermittently online](#)
10. UNAIDS, *Report on the Global HIV/AIDS Epidemic*, (United Nations, Geneva, Switzerland, 2000). [Available online](#)
11. World Bank Thailand Office. "Thailand's response to AIDS: Building on success, confronting the future" (*Thailand Social Monitor V*, Bangkok, Thailand, 2001). [Available online](#)

12. A. Chitwarakorn, A. W. Sittitrai, T. Brown, and D. Mugrditchian, in *Sexually Transmitted Diseases in Asia and the Pacific*, T. Brown, Ed. (Venereology Publishing, Melbourne, Australia, 1998), chap. 20
13. N. H. Dukers, J. Goudsmit, J. B. de Wit, M. Prins, G. J. Weverling, R. A. Coutinho, *AIDS* **15**, 369 (2001). [PubMed](#)
14. P. Van de Ven, G. Prestage, J. Crawford, A. Grulich, S. Kippax, *AIDS* **14**, 2951 (2000). [PubMed](#)
15. M. L. Ekstrand, R. D. Stall, J. P. Paul, D. H. Osmond, T. J. Coates, *AIDS* **13**, 1525 (1999) [PubMed](#)
16. M. Miller *et al.*, *AIDS* **14**, F33 (2000). [PubMed](#)
17. P. A. Vanable, D.G. Ostrow, D. J. McKirnan, K. J. Taywaditep, B. A. Hope, *Health Psychol.* **19**,134 (2000). [PubMed](#)
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