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THAILAND

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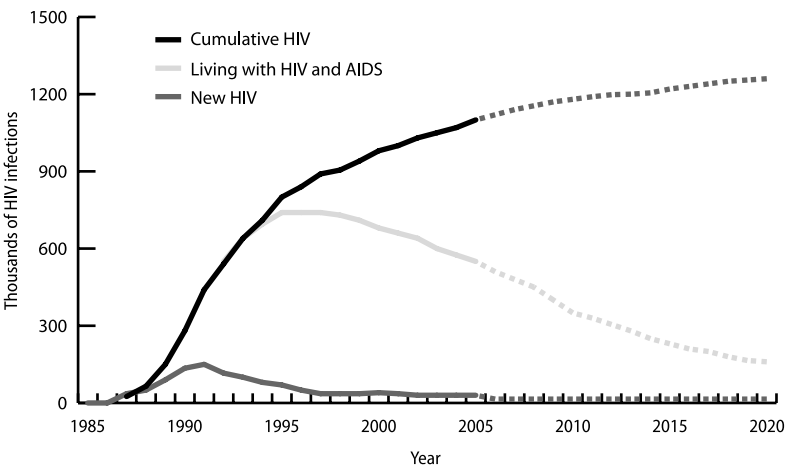
AIDS is currently the highest-ranking cause of death among the working-age population in Thailand. The disease has led to incalculable human suffering and social disruption, as well as huge economic costs. Yet, through an innovative, comprehensive strategy, Thailand has become the first country in the developing world where declines in HIV prevalence have been realized (see fig. 1).

Figure 1. HIV epidemiology in Thailand



Source: East-West Center (2005).

Thailand has successfully controlled its HIV epidemic through a strategy of prevention and care that has evolved through a number of stages. This chapter explores that evolving policy, along with the changing epidemiological profile of the HIV/AIDS epidemic in Thailand.

Evolution of the HIV/AIDS Epidemic in Thailand

The Beginning

The first case of AIDS in Thailand was identified in 1984. That was obviously not the beginning of the epidemic, but it served as an effective warning of the arrival of HIV infection. This signal sparked some concern, which led to active efforts to assess the situation. During 1986–1987, a series of surveys was conducted of high-risk groups, namely commercial sex workers (CSWs) in tourist areas, prison inmates, and drug dependents in treatment centers. The latter two high-risk groups yielded few cases of HIV reactive serum among a sampling population of thousands.

In September 1987, the Ministry of Public Health (MOPH) launched a monitoring system of drug dependents in treatment at the Thanyarak Hospital, Thailand's largest inpatient hospital, which is located in the suburbs of Bangkok. In February 1988, the Bangkok Metropolitan Authority, which runs a network of 17 outpatient drug dependency treatment clinics in Bangkok, launched a serial cross-sectional survey of HIV infection. The rapid escalation in the prevalence of HIV at the beginning of 1988 was revealed simultaneously through the results of these two independent monitoring systems. The prevalence levels rose to above 30% within eight months. The epidemic in Bangkok apparently preceded those in provincial areas by only a few months. The epidemic among the injecting drug user (IDU) population spread throughout the whole country in the same year.

In July 1988, a cross-sectional survey of CSWs in the city of Chiang Mai revealed a very high HIV prevalence of about 44%. Subsequent CSW surveys in other areas confirmed that there was a concurrent epidemic among the CSW population. In contrast to the nationwide epidemic in the IDU population, the high prevalence in the female CSW population was localized in the upper provinces of the northern region of Thailand. A subsequent study of the specific HIV types of the IDU and CSW cases

demonstrated that the HIV subtypes in these two populations were quite different. Hence, the concurrent epidemics in the IDU and CSW populations were independent phenomena.

The Epidemic in High-Risk Groups

In June 1989, the Division of Epidemiology at the MOPH launched a new sentinel surveillance system that monitors HIV prevalence from a quota sampling of two sets of target groups. The first is a set from high-risk populations, which consists of male and female CSWs, IDUs, and male clients of clinics for sexually transmitted diseases (STDs). The other set serves as a proxy for the general population and includes blood donors, pregnant women attending antenatal care (ANC) clinics, and army conscripts. The first survey included 14 of Thailand's 74 provinces. The number of provinces was gradually expanded in the next two surveys, conducted in December 1989 and June 1990, with the latter survey covering all provinces. Up to 1995, two surveys were conducted per year. From 1995 to the present, only one survey has been carried out each year. The sentinel surveillance showed that HIV prevalence in each high-risk group was quite different. However, each group followed surprisingly similar trends both in Bangkok and in provincial areas.

During the last five years, a number of provinces have begun to develop local monitoring information in response to their specific HIV/AIDS situation. The approach to monitoring in this instance adopted the sentinel surveillance process for the most part. However, some provinces also developed new approaches to assess behavior and new target groups. That data and information offered remarkable improvements in the understanding of local situations and provided new directions for future intervention.

Drug Addicts—From 1988 to the present, the sentinel surveillance of IDUs exhibited a gradual increase in HIV prevalence in Bangkok and in all provincial regions (with the exception of the northeastern region, which had an inadequate sample). Monitoring of HIV infection among the drug-dependent population in treatment at the Thanyarak Hospital started in late 1987 and still operates today. During the period 1992–2001, the hospital screened HIV reactive serum of approximately 7,000–12,000 drug-dependent individuals per year. HIV prevalence among heroin users who

injected the drug intravenously was between 32.1% and 45.3% throughout this period. For heroin dependents who reported drug administration by smoking, HIV prevalence varied from 3.4% to 10.3%.

Clients undergoing treatment for the illicit stimulant yaba (the principle active ingredient of which is methamphetamine), industrial solvent, ganja (marijuana), and alcohol were also subjected to serum screening. Increased prevalence of HIV was observed in clients using yaba and industrial solvent from 1995 onwards, reaching highs of 7.6% and 14.6% respectively in 1998. The prevalence decreased to 3.6% and 4.8% in the following years. Ganja users showed prevalence rates ranging between 2.6% and 10.4%, and prevalence in clients being treated for alcohol ranged from 2.1% to 7.2%. The level of prevalence in these noninjecting substance abusers was fairly high and most likely well above general population levels, suggesting that the substance abuser population, which includes alcoholics, is more vulnerable to HIV infection.

The significance of the vulnerability of substance abusers has to be appraised within the context of the substance abusing population in the whole country. The total number of substance dependents who entered treatment nationwide ranged from 73,079 cases in 1998, to 64,232 in 2002. The percentage that had engaged in intravenous injection during the 30 days prior to admission decreased each year from 54.2% to 35.7% over the same period. The majority of substance dependents in treatment at present are in fact not IDUs. However, they are still highly vulnerable to HIV infection. Furthermore, occasional users of drugs and other substances number in the hundreds of thousands. Their vulnerability to HIV transmission remains unclear.

Female Commercial Sex Workers—The sentinel surveillance showed that prevalence in female CSWs at brothels (direct CSWs) in all provincial regions gradually decreased through the 1990s, and has leveled off from 2000 to the present. It should be noted that the 20% levels of prevalence in the central and northern regions were actually double that of Bangkok and other regions. Prevalence in Bangkok leveled off about five years earlier than other regions. Among indirect CSWs—those based in restaurants and entertainment establishments—prevalence peaked in 1995, later than in the direct group. The prevalence in all areas dropped rapidly to level off at

about 5% between 1997 and 2002. In this instance, no marked percentage difference was observed between Bangkok and provincial regions, although there were considerable differences between the provinces themselves. For example, in 2002, across all provinces in the northern region, which suffered the most severe epidemic among female CSWs, the median prevalence rate was still 17.7%, and the range was 4.0%–81.8%.

Male Commercial Sex Workers—In 1998, the sentinel surveillance was extended to cover the male CSW population in four provinces that are major tourist areas. Over the years, the highest prevalence rates in these provinces ranged between 14% and 23%. A continuous decline in prevalence was found in three of the four provinces during 2000–2002, falling from a range of 13.6%–14.2% to 4.2%–10.7%.

Male Clients of STD Clinics—HIV infection rates revealed in the sentinel surveillance of male clients of STD clinics in Bangkok and all provincial regions reflected similar patterns of change. The central and northern regions showed high levels of around 10%. In this case, however, the southern region also showed similar trends. Overall, infection rates were fairly constant through the 1990s, and then they decreased, leveling off from 2000 to 2003 at about one-half of their previous levels.

Subgroups of the General Population

Blood Donors—The national blood bank of the Royal Thai Red Cross recruits donors from Bangkok and the peripheral provinces. From 1990 to 2002, the annual number of donors ranged from 166,177 to 228,091. In the process of blood donor recruitment, people have, from a very early date, been given the option of voluntary deferral if they recently engaged in high-risk behavior. Thus, their HIV prevalence does not properly reflect the situation in the general population among people of similar demographics. The sentinel surveillance initially revealed prevalence in the central and northern regions higher than that of the other regions. However, these differences have become less obvious and all areas from 1995 to 2003 showed prevalence rates in the 0.2%–0.4% range.

The HIV prevalence for the blood donor group in this period showed decreasing infection rates similar to those revealed for target groups in the

sentinel surveillance. The prevalence rates specific to characteristics such as gender and new or repeat donor status showed clearly that the male, new donor subgroup had consistently higher prevalence than other subgroups. The highest percentage among the male, new donor subgroup was 1.6% in 1993, which then decreased annually to about 0.3% in 2002; other groups consistently averaged lower throughout this period at 0.1%–0.2% prevalence rates. The rate of decrease was slower than those revealed by the sentinel surveillance of the provincial regions. Blood donors between the ages of 21 and 30 also had consistently higher prevalence rates than those in other age groups, although that high prevalence decreased annually, falling to 0.2% in 2002.

Blood donations in provincial areas are collected from individuals who belong to volunteer groups and from replacement donors (i.e., donors who a recipient recruits specifically to provide blood for their own use). The replacement population is not subjected to self-deferral screening and is commonly a relative of the recipient. Payao province in the upper northern region recorded the following HIV prevalence data specific to the type of donor, sex, and age. For the male donor from 1994 to 2002, prevalence in the replacement group was consistently more than double the volunteer group. In the case of female donors, the difference was not as remarkable, with the replacement group probably slightly higher than the volunteer group in the 1990s, but with no apparent difference from 2000 to 2002. Further breakdown of the male donors by age group (20–29, 30–39, and 40–49 years of age) showed that, in each year between 1994 and 1997, HIV prevalence was highest among those 20 to 29 years old; prevalence decreased with increased age. From 1998 to 2002, the difference between age groups became less apparent, as did the difference in prevalence between the counterpart age groups of the replacement and volunteer groups.

Pregnant Women Attending Antenatal Care Clinics—The sentinel surveillance of pregnant women attending ANC clinics in the first half of the 1990s showed rapid increases in prevalence in all areas. The prevalence in the central and northern regions reached a peak in 1995 at about 2.7%—notably higher than in other regions—then gradually decreased to about 1.5% in 2002. Through the latter half of the 1990s to 2002, the

prevalence in Bangkok and the northeastern and southern regions fluctuated but eventually aligned with the prevalence rates of the central and northern regions.

The specific demographic breakdown of the regional prevalence revealed a few contentious trends. Decreased prevalence among pregnant women was confined to provinces in the upper part of the northern region, while prevalence in specific provinces of the southern region was distinctly higher than in others and even showed some signs of increase. The prevalence of HIV in pregnant women under 30 years of age decreased with time, while there was a slight increase for those 30 years and older from 2000 to 2002.

The prevalence specific to number of pregnancies indicated that mothers pregnant with their first child showed remarkable decreased prevalence from the 1990s to the present. Prevalence among mothers with a second pregnancy remained unchanged, while mothers carrying their third child exhibited slightly increased prevalence from 2000 to 2003.

During the 1996–2000 period, provinces of the upper part of the southern region already showed trends similar to those just described at the national level. The HIV prevalence among women pregnant with their third child increased sevenfold in this five-year period. Recently, similar trends were found in Payao province in the northern region of the country. Data indicates that the situation there could very well reflect a nationwide pattern; however some variations are to be expected due to the different stages of evolution of the epidemic in each area.

Army Conscripts—The Armed Forces Institute of Medical Sciences in the Ministry of Defense has monitored HIV prevalence among army conscripts since 1991. Extremely high prevalence appeared in the upper northern region only. All areas started to see decreases in prevalence during the 1990s, and by 2000 they had converged at a level well below 1%. Breakdowns according to age, marital status, and education showed that lower age and education and being single tended to indicate higher prevalence. However, these demographic differences gradually decreased and were no longer evident after 1998.

Crews of Deep Sea Fishing Boats—In 1998, the sentinel surveillance was extended to cover crews of deep sea fishing boats in three central provinces and

six provinces in the southern region. In each target province, the prevalence fluctuated from year to year and the high end of prevalence rates ranged from 7.9% to 24.5%. The pattern most likely reflected the incomparability of the sample. Despite the fluctuations found in this unrepresentative sampling, it may demonstrate a stable infection rate among this population, which seems to be higher than that of the general population. In reports from Pattani province, individuals aged 30 years and above tended to have higher prevalence rates than those who were younger.

Foreign Migrants and Illegal Aliens—Due to economic stress in the Southeast Asian countries surrounding Thailand, many people from those countries have migrated to Thailand seeking economic opportunities. Only a small fraction of this population has registered as foreign migrants and been granted work permits. The large number who reside as illegal aliens generally have very limited access to healthcare services. A number of people have also crossed over the border specifically to make use of the Thai health care service facilities. The Division of Epidemiology extended the sentinel surveillance to cover foreign pregnant women who attended ANC clinics in 14 provinces around the country. Even though HIV prevalence among foreign migrant expectant mothers in certain provinces was lower than in their Thai female counterparts, the general pattern of prevalence among foreign migrants saw much higher percentages.

Along the coasts of the country that open to the Gulf of Thailand and the Andaman Sea, large numbers of fishing boats are manned by foreign migrants. Despite the significant size of the foreign labor force in the fishing industry, however, until recently, statistics for this population were not available. In Rayong province, on the eastern seaboard, the registered foreign labor force is provided with annual health examinations by the public health services. The HIV prevalence among these workers fell from 5.0% in 1997 to 1.3% in 2002. The Provincial Health Office in Pattani province in the southern region conducted annual surveys of the foreign labor force on fishing boats from 2000 to 2003, concurrent with a survey of the Thai counterpart target group. HIV infection rates in these two groups showed that the foreign migrants consistently had lower percentages than the Thai target group; the breakdown by age group showed definite higher risk for individuals over 25 years old.

Evolution of HIV/AIDS Policy

The evolution of Thailand's approach to HIV/AIDS may be categorized into three main phases: initial confrontation with the epidemic, creation of unified alliances, and alleviation of the consequences of HIV/AIDS.

Initial Confrontation with the Epidemic (1984–1990)

When Thailand witnessed an upsurge in the prevalence of HIV and AIDS in the 1980s, the government followed a standard public health approach that emphasized case reporting of AIDS through the medical system. However, the system failed to detect the rapid spread of HIV infection, which can be asymptomatic for many years before the onset of AIDS. There was very limited information on risky behavior that might spread HIV among the general population. The public perception was that AIDS affected only homosexual men, male sex workers, and IDUs, and the government focused preventive activities on these groups.

Prior to 1988, AIDS-related activities were funded by international and bilateral donors. As the Royal Thai Government began to allocate funds for the program and slowly became more open to developing a policy to address HIV/AIDS, prominent activists lent their credibility and prestige to the anti-AIDS campaign.

The Medium-Term Program for the Prevention and Control of AIDS (1989–1991) included measures for program management, health education, counseling, training, surveillance, monitoring, medical and social care, and laboratory and blood safety control. The strategy focused on individual risk and responsibility by providing information, raising awareness, and sometimes delivering fear-inducing messages.

In 1990, a national study of behavioral risks for HIV infection among key population groups was sponsored by the World Health Organization and conducted by the Thai Red Cross and Chulalongkorn University. The survey findings transformed perceptions and raised awareness that the disease posed a threat to the whole population. The epidemiological surveillance results helped nongovernmental organizations (NGOs) to accelerate their prevention and treatment activities and their human rights advocacy, and to create a lobbying group for an effective AIDS policy.

Creation of Alliances and Multisectoral Public Action (1991–1997)
In 1990, the official AIDS policy was announced together with the establishment of a National AIDS Prevention and Control Committee under the prime minister's chairmanship.

Public Information and Education—With increasing government concern over the HIV epidemic, an intensive public information campaign on HIV/AIDS prevention was launched through the mass media, including mandatory one-minute AIDS education spots every hour on television and radio. These messages emphasized prevention through behavior change, including condom use. AIDS was approached as not only a health problem, but also a social problem.

National Program to Promote Condom Use—The "100% Condom Program" was adopted nationwide in 1991–1992 to promote universal use of condoms in commercial sex. While prostitution is illegal, authorities adopted a pragmatic approach of encouraging widespread condom use and seeking collaboration among public health officials, brothel owners, local police, and sex workers. Thailand's extensive network of treatment clinics for STDs and the public health service's list of sex establishments made monitoring feasible.

Social marketing of safe sex and condom use has been conducted for young men and women. Condoms are available in drugstores, supermarkets, convenience stores, and gas stations. Because condoms can be manufactured from Thai rubber products, they are quite affordable and accessible in markets throughout the country.

All ministries provided education for their constituent populations. The Ministry of Education launched peer education programs among students and held an annual national competition for schoolchildren to write essays about HIV/AIDS, which greatly raised their level of awareness. Government efforts were complemented by private initiatives, such as the Thailand Business Coalition on AIDS, which promoted HIV/AIDS education and prevention in the workplace. A program was launched to discourage young girls from entering into prostitution by providing scholarships for continuing their education and enhancing their employment opportunities.

Timely information, education, and communication interventions require the capacity to keep pace with social and behavioral transformations in a rapidly changing society. Better understanding of the cultural and social dimensions of behavior was crucial to developing more sophisticated responses aimed at facilitating community support for changed behavior. People living with HIV/AIDS have been valuable allies in formulating concepts and messages. Although HIV/AIDS information and education can be sensitive social and cultural topics, effective preventive campaigns were developed, and stigmatization of vulnerable target groups was avoided.

Human Rights for People Living with HIV/AIDS—In the early 1990s, mandatory reporting of names and addresses of AIDS patients and regulations that sought to isolate and detain people with HIV/AIDS were rejected as measures to control the epidemic, and the principle of voluntary, anonymous, confidential counseling and testing for HIV/AIDS was established. The central policy in Thailand emphasized empowering people infected with HIV and AIDS. In contrast to the earlier phase of the response, people with HIV and AIDS were recognized as an essential resource for prevention and care rather than a potential reservoir of the epidemic.

National AIDS Plan—During the period 1992–1996, a comprehensive action plan was formulated under the National Economic and Social Development Board (NESDB) to ensure cooperation among 14 government ministries, NGOs, and the private sector. Government financial commitments to combating HIV/AIDS rose sharply from 1989 to 1996, and additional support was received from 19 international organizations and foreign governments. The plan served as a vehicle for various Thai agencies and departments to participate in the work. Larger-scale participation resulted in increased AIDS awareness among the general public and higher-risk groups.

During the period 1991–1997, the main players were the MOPH and the NGO community. While other ministries had funds, they lacked the expertise to conduct programs, which in effect went beyond their mandates. In 1994, the MOPH was entrusted to coordinate the programs, and the prime minister continued to chair the national committee. NGOs participated formally in the policymaking process and lobbied strongly for wider dissemination of public information, protection of human rights, and

compassionate care for AIDS patients. The NESDB planned the national AIDS strategy and five-year AIDS control program, allocating resources to ministries and NGOs. The plan emphasized the mobilization of society and communities to participate in prevention of HIV infection, to care for those who were sick, and to reduce discrimination toward and stigmatization of people living with HIV/AIDS. This strategy of forming alliances and taking advantage of synergies continues at the present time.

Orchestrating Alliances—Government funds were allocated for a number of activities to encourage the creation of alliances between various sectors:

Behavioral and Social Interventions. Funds were directed to disseminate information and support education for the general public, as well as for target groups. The program aimed to prevent HIV infection among various groups by promoting proper values and motivation to ensure non-risky behavior. It supported the creation of mutual understanding among community members to accept the reality that AIDS threatens everyone in society. It required persuasion and support for communities to become reconciled to HIV/AIDS and for them to work with people who have HIV/AIDS.

Health Promotion, Medical Services, and Counseling. To support healthcare and community care for people with HIV and AIDS, guidelines and regimens were developed for improving the standard treatment for AIDS patients. A small-scale clinical trial was conducted to improve hospital practices, and clinical settings were better outfitted to protect clients and personnel.

Provision of Counseling. Separate funds were allocated so that people with HIV and AIDS, their families, service providers, and other concerned people would have access to anonymous counseling. Training of counselors and refresher courses were supported to extend service, as well as to maintain its quality. Testing for HIV was provided under the condition of pre- and post-counseling, as well as with prerequisite informed consent.

Legal Measures. In order to create a positive attitude among the general public and to protect the human rights of people with HIV and AIDS, guidelines were developed for the government attorney, NGOs, and the

community. Funds were allocated to support social welfare and assistance for people with HIV and AIDS and their families.

AIDS Management Capacity Building. The structure of the national committee was expanded through every sector and province. Efforts to mobilize and empower a broad set of stakeholders to coordinate AIDS activities in each sector and area were supported. Because government officers could not reach certain populations at the margins, NGOs received an increasing amount of funds during the period 1992–1996 to provide the required assistance to groups who were difficult to reach.

AIDS Research and Evaluation. The budget was directed to promote research that leads to policy formulation and the practical application of research results, as well as to assess AIDS prevention and control efforts in Thailand. It provided grants through a network of researchers from universities and NGOs, with the intention of expanding knowledge on AIDS.

Alleviation of the Consequences of AIDS (1998–present)

By 1996, the epidemic had spread more broadly through the population, reaching families and groups originally considered to be at low risk—particularly housewives, women of reproductive age, and their infants.

A Turning Point: The Plan of 1997–2001—The National Plan for Prevention and Alleviation of HIV/AIDS for 1997–2001 (the Plan of 1997–2001) was formulated to modify existing policy and strategy to meet new challenges. This plan was a turning point for coping with HIV/AIDS in Thailand. It recognized the strong interrelationships among national development goals in social and economic improvement, health (including HIV/AIDS), child and youth development, labor and social welfare, cultural development, and other areas. Community strengthening was acknowledged as the foundation for economic, cultural, and social self-reliance. HIV/AIDS was no longer to be seen as a separate problem, but as an integral part of a complex social problem.

The Plan of 1997–2001 emphasized efforts to mobilize communities and civil society to initiate their own activities. The plan included eight main programs, among which were the following:

Empowerment of Community and Family. Community structures to support HIV/AIDS alleviation were given financial assistance to sustain activities. Village programs received matching funds, particularly in the north, where the majority of people with HIV/AIDS resided. In other parts of the country, community empowerment was encouraged through collaboration between the Ministry of Interior, local government, and grassroots civil society. The aim was to enable communities to manage both prevention of HIV/AIDS and alleviation of the impact of AIDS through their own resources. Education through community schools was used to strengthen the program.

Development of Psychosocial Care for HIV/AIDS. Social welfare services to cope with the burden of people living with HIV/AIDS and children orphaned by HIV/AIDS became a priority. The policy aimed to enable communities and families to be self-reliant. However, knowledge was required for developing, managing, and promoting programs so that communities could apply for services and people with HIV/AIDS could live a healthier life. Nurturing AIDS orphans in the community required consideration of the diverse cultures in each community. Attention to human rights protection was fundamental to sustaining the livelihood of people with HIV/AIDS.

Health and Medical Care for HIV/AIDS. Life can be prolonged for people with HIV/AIDS, and HIV transmission from mother to child can be prevented with health and medical care. Therefore, the healthcare infrastructure in the country was reoriented to be able to provide HIV/AIDS care, and the health services capabilities were strengthened so that clients would be able to access appropriate services. Home-based care was made available to support the continuation of care for people with HIV/AIDS.

HIV/AIDS Research. Research was focused on developing guidelines for the appropriate application of AIDS therapy in clinical practice and on collaboration with international studies on HIV vaccine development. A need for social and behavioral research to strengthen the prevention program was also identified, although investment in this area of research was lower than in the other two areas.

Children and HIV/AIDS—In Thailand, children are a high-risk group for HIV/AIDS infection because women are infected by their husbands, and the infection is transmitted to children during pregnancy or delivery. About 15,000 pregnant women are estimated to be infected with HIV each year. Approximately one-fifth of these cases lead to infection in the children, and thus HIV has had an impact on infant and child mortality.

A substantial number of children will experience the effects of AIDS through the death or disability of one or both of their parents; often, parents die before their children are capable of independent living. In 1998, His Majesty King Bhumibol Adulyadej publicly expressed his concern about AIDS orphans and graciously advised support for the education of AIDS orphans in order to assist them to live normal lives in their communities. This stimulated a national effort to alleviate the social impact of the epidemic. The Rachapracha Samasai Foundation set up a scholarship fund for AIDS orphans in four provinces, which was extended to include another five provinces by 1999. Later, the pilot project was extended and became government policy under the Ministry of Education.

Political and Health Reform and the National AIDS Alleviation Plan of 2002–2006—Under Thailand's 1997 constitution, health is regarded as a human right. The National Health Insurance Act, promulgated in 2002, endorses the policy of universal healthcare coverage. Equal entitlement to health has been introduced for vulnerable populations such as the elderly, the disabled, and abandoned children, as well as people with HIV/AIDS.

The National AIDS Alleviation Plan of 2002–2006 is endeavoring to accommodate AIDS policy to fit this restructuring. The plan includes the following priorities:

HIV/AIDS Prevention. As a preventive measure, the plan supports the development of a socioeconomic environment to reduce risky behavior among individuals, families, and communities. Support for treatment programs to cope with the increasing number of drug users is envisioned. Small-scale community work by NGOs will be initiated and eventually scaled up. Preventing transmission of HIV from mother to child has been emphasized for nationwide coverage.

HIV/AIDS Alleviation. Clinical and community services will be strengthened to accommodate HIV/AIDS care into the evolving primary medical services. The Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) will subsidize this extension of HIV/AIDS care. The Government Pharmaceutical Organization will produce and maintain some essential drugs and diagnostic devices to guarantee the availability of effective therapeutic measures.

In addition, capacity building of communities will be supported and encouraged through the networking of NGOs. In 2002, 32.6% of the annual AIDS budget was devoted to health coverage, with the National Health Insurance Bureau being accountable for further support of medical care for Thailand's people living with HIV/AIDS.

HIV/AIDS Research. Research will be coordinated to meet needs as circumstances evolve. A university consortium will manage research related to therapeutic treatment, sociobehavioral prevention measures, and socioeconomic impact, so that the research results will lead to pragmatic planning and will empower those coping with HIV/AIDS.

HIV/AIDS Vaccine Research and Development. This program aims to catalyze collaboration among researchers, pharmaceutical companies, and communities to join in the quest for a vaccine capable of controlling the HIV epidemic. A network for HIV laboratories, clinical trials, and data management, and a repository for vaccine research will be supported. The vaccine research and development plan aims to transfer novel technology into the country so that technical self-reliance will guarantee the national AIDS program's feasibility.

Contribution of NGOs

NGOs have played an important role in the response to AIDS in Thailand. Their critical role in facilitating care for AIDS patients has been well cited. Budget allocations to NGOs have remained steady since the beginning of the crisis, although the mix of services provided, program coverage, and likely impact have not been studied. In 1999, the AIDS Division of

the MOPH allocated 87.5 million baht to 465 projects conducted by 373 organizations, for an average outlay of 188,200 baht (roughly US$ 4,700) per project. In 2000 and 2001, the allocations for NGOs declined, but this difference was in part offset by the US$ 2.6 million AIDS component of the Social Investment Project (SIP), financed by the World Bank. In 2000, the AIDS budget allocated 60 million baht to nearly 300 NGOs for prevention and care, and the SIP an additional 27 million baht to six major NGOs, which allocated funds to smaller NGO collaborators.

Little information is available about the precise activities of the NGOs, the effectiveness of their activities, or their potential to complement other public and private programs. In particular, information is not readily available on the extent to which NGOs are involved in prevention activities, and whether those prevention activities are focused on those at greatest risk of transmitting AIDS to others, or on the general population.

While the financing of NGO activities represents a small share of overall expenditures (6.1% in 1999), the NGO share is only slightly less than the share spent on prevention (7.6%). The extent to which these activities complement both the prevention and treatment components of the budget, as well as the activities' coverage and effectiveness, deserves review.

Looking Forward

At present, these programs under the National AIDS Alleviation Plan of 2002–2006 have all been implemented with strong government support. However, it is too early to assess the outcomes of the programs.

Since 1998, antiretroviral (ARV) therapeutic care and mechanisms for prevention of mother-to-child transmission have become increasingly effective, putting pressure on policymakers to increase support for these aspects of the program. Government funds have been allocated increasingly to medical services for AIDS patients and prevention of mother-to-child HIV transmission in the past six years. Currently, the government has committed to allocating enough funds for the provision of ARV drugs and therapy for opportunistic infections to cover about 50,000 AIDS cases. With partial support from the Global Fund, the government plans to extend its service to cover holistic care for all people in Thailand with HIV/AIDS in

the next decade. The key strategy is to repackage and manufacture ARV generic drugs and essential diagnostic tools locally. With this capability, it will be possible for all infected people to have access to medical care. In addition, NGO coalitions have joined their efforts to bolster community and family care so that continuous care will be sustained.

The Policy's Impact on the Epidemic

Since the initiation of the national programs described above, behavior and lifestyles have been profoundly affected. The demand for commercial sex has declined, condom use in commercial sex has risen, and the prevalence of HIV among army conscripts has dropped by more than half. Condom use in brothels rose from about 14% to more than 90% between 1988 and 1992, and a 1997 survey of nearly 2,000 sex workers in 24 provinces found that condom use was more than 90%.

Male STD patients reporting to public clinics fell precipitously from about 220,000 per year in 1988, to about 20,000 in 1995. New cases of STDs declined from 6.5 per 1,000 people in 1989, to 3.2 per 1,000 in 1991, and 1.6 per 1,000 in 1993. At the same time, two-thirds of drugstores surveyed in 24 provinces reported a decline in the sale of antibiotics for STD treatment and a sustained increase in condoms sales, confirming that patients were not simply diverted to private treatment sources.

During 1990 to 1993, the proportion of men reporting any premarital or extramarital sex dropped from 28% to 15%, the proportion visiting sex workers dropped from 22% to 10%, and the proportion consistently using condoms in commercial sex rose from 36% to 71%. HIV prevalence among 21-year-old army conscripts, which had risen to 4% in 1993, began a steady decline to 1.56% in 1999. There was a very strong association among increased condom use, reduction in visits to sex workers, and reduced incidence of STDs and HIV over a relatively short period of time.

The prevalence of HIV among young women (under 25) giving birth to their first child at Chiang Rai Hospital, which is located in an area of high HIV/AIDS prevalence in the northern part of the country, rose from 1.3% in 1990, to 6.4% in 1994, then declined to 4.6% and 2.1% in 1997 and 2002 respectively.

Behavior change in Thailand has prevented an estimated 200,000 HIV infections that would have otherwise occurred during 1993 and 2000. Recent estimates indicate that incidence of infection in Thailand was 29% lower in 2000 than what it was projected to be in 1994. The number of new HIV infections in Thailand dropped from about 137,000 per year in 1990 to 29,000 per year in 2000.

Accessibility to essential healthcare is still inadequate for people living with HIV/AIDS. It was expected that, given the government's policy on universal healthcare coverage, the pressure of civil society movements, and adjustments in the prices of ARV drugs globally, the opportunity to gain access to appropriate care would have been improved. Although comprehensive care—encompassing service and home care—has been supported under the national AIDS program, there has not been a scientific evaluation of the policy.

Conclusion

A major contributor to the Thai program's positive impact has been the willingness to alter policies and programs as knowledge of the extent of risk behavior has grown, and as the social, economic, and cultural roots of the epidemic have been exposed. This knowledge has shown clearly the role that each sector of society has had to play in response to the epidemic. Recruitment of various sectors to participate in the program has allowed the country to move quickly to a broad-based holistic response. True multisectoral involvement has been emphasized, and environments that foster risk reduction and care have been sought. Another factor contributing to successes in the Thai effort has been the use of multiple simultaneous approaches to HIV prevention.

The HIV/AIDS strategy has evolved to become an integral part of broader political reform in terms of decentralization, universal healthcare coverage, and public sector reform. Evaluations should be conducted to assess the capabilities of local authorities and communities to manage the extensive endeavors of the HIV/AIDS program. As financial support from central authorities declines, the firmness of the foundation of Thai society with respect to its ability to cope with the AIDS threat will be tested.