

ASIA - PACIFIC POPULATION & POLICY

Tackling the HIV/AIDS Epidemic in Asia

Asia-Pacific Population & Policy summarizes research on population and reproductive health for policymakers and others concerned with the Asia-Pacific region.

This publication was made possible through support from the David and Lucile Packard Foundation. The opinions expressed do not necessarily reflect the views of the East-West Center or of its supporters.

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ISSN 0891-6683

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The earliest cases of HIV in Asia were reported in 1984 and 1985. The potential for widespread epidemics was not appreciated until the early 1990s, however, with the more extensive spread of HIV in Cambodia, Myanmar, Thailand, and parts of India. Today, these four countries have the highest adult infection levels in the region (Table 1). By contrast, Bangladesh, Laos, and the Philippines have some of the lowest HIV rates in the world. China, Indonesia, Nepal, and Vietnam have epidemics in transition, characterized by recent increases in infection levels after an extended period of low prevalence.

Despite strong evidence that HIV is spreading, national responses in most

countries remain weak. Surveillance systems are inadequate, and the coverage of prevention and care programs is extremely limited.

This issue of *Asia-Pacific Population & Policy* addresses three questions: (1) What drives Asian epidemics, and why do we see major differences across the region; (2) Where are these epidemics likely to go unless prevention efforts are strengthened; and (3) What can be done to stop their growth?

WHAT DRIVES ASIAN EPIDEMICS?

In Africa, HIV has spread mainly through casual heterosexual relation-

Table 1 HIV prevalence levels in Asian countries, December 2001

Country	Percentage of adult population (age 15-49 years) with HIV	Number living with HIV
Cambodia	2.7%	170,000
Myanmar*	2.0%	530,000
Thailand	1.8%	670,000
India	0.8%	3,970,000
Nepal	0.5%	58,000
Malaysia	0.4%	42,000
Vietnam	0.3%	130,000
Singapore	0.2%	3,400
China	0.1%	850,000
Indonesia	0.1%	120,000
Bangladesh	<0.1%	13,000
Lao PDR	<0.1%	1,400
Philippines	<0.1%	9,400

Source: UNAIDS Report on the Global HIV/AIDS Epidemic 2000, 2002.

*1999 figures; no 2001 figures available.

ships in the population at large. In contrast, the HIV situation in Asia consists almost entirely of multiple, interrelated epidemics in key at-risk populations and their immediate sexual partners. These populations are:

1. Injecting drug users—Epidemics among drug users have played an important role in the spread of the virus in many countries, for example, China, Vietnam, and Malaysia.
2. Men who have sex with men—This population group has been largely ignored by HIV programs in Asia, but recent surveys in Bangkok and Phnom Penh found roughly one in seven of these men infected with HIV.
3. Clients and sex workers—This is by far the largest component of the HIV epidemic in Asia and the source of many female and most male heterosexual infections.

The epidemic is also affecting the low-risk female partners of high-risk men. More than three-quarters of the women who have become infected with HIV in Asia have no risk behavior at all by conventional definitions. They contracted HIV in what they thought were monogamous relationships with their husbands.

The term “general population spread” (as in the boyfriend-girlfriend transmission dominant in Africa) does not apply in most Asian countries, because female sexuality tends to be constrained. But the concentration of HIV in at-risk populations and their immediate partners does not mean that Asian epidemics will remain at low levels.

The largest group at risk of HIV infection in Asia—male clients of sex workers—comprise a significant proportion of the population. In the early 1990s, the percentage of adult men reporting visits to sex workers in the previous year ranged from a low of roughly 5 percent in Singapore and Hong Kong to a high of around 20 percent in Thailand and Cambodia (Table 2).

When men who visit sex workers and their wives are combined with the smaller numbers of sex workers, men who have sex with men, and injecting drug users, between 7 and 25 percent of the adult population in Asian countries may be at risk of HIV.

WHERE ARE THE ASIAN EPIDEMICS LIKELY TO GO?

Potential HIV prevalence levels have been modeled for countries with three levels of risk behavior (Figure 1). Categories of risk behavior are based on the percentage of adult men who are sex-work clients and the average number of clients per night for sex workers. All models assume that HIV is introduced in 1985 and that condom use in sex work remains below 40 percent—a realistic assumption for most Asian countries today.

The upper solid red line in Figure 1 shows a country where 20 percent of men visit sex workers in a year and where sex workers have about two clients per night. This was the situation in Cambodia and Thailand in the early 1990s. Under these conditions, the increase in HIV prevalence is explosive.

The solid black line in the middle of the figure shows a country where 10 percent of men visit sex workers in a

year and where sex workers have on average one client per night. This might be Vietnam or Nepal today. The epidemic begins almost a decade later and grows more gradually.

The lower solid red line shows a country where 5 percent of men visit sex workers in a year and sex workers have only one client every other night, not unlike the situation in Hong Kong or Singapore. In these circumstances, the epidemic is very slow to take off.

The implications are clear. The epidemic takes off in the early 1990s in high-risk countries, in the mid-2000s in middle-risk countries, and very much later in low-risk countries.

Growth of the epidemic can be greatly accelerated, however, by the linkages between sub-epidemics among clients and sex workers and among injecting drug users and men who have sex with men. Behavioral studies in several countries have shown that anywhere from one-third to three-quarters of injecting drug users visited a sex worker in the previous year. Some drug users sell sex, some sex workers use drugs, and some men who have sex with men also visit female sex workers.

The broken lines in Figure 1 show the projected percentages of the adult population infected with HIV when an epidemic among injecting drug users is taken into account along with the sex-work epidemic. The drug-related epidemic starts among a small group in 1990 but spreads quickly because needle sharing spreads HIV so efficiently. Because drug users also visit sex workers, growth of the sex-work epidemic is accelerated, driving up the overall national epidemic growth rate.

The effect is particularly striking for the middle- and low-risk countries. In the middle-risk countries, the epidemic could begin almost 10 years earlier than an epidemic fueled by sex work alone; in the low-risk countries it could begin 20 years earlier.

Table 2 Percentage of adult male population (age 15–49 years) who visited a sex worker in the previous year

Country	Year	% who visited a sex worker
Thailand	1990	22%
Thailand	1993	10%
Cambodia	2000	13%
Japan	1999	11%
Philippines	2000	7%
Hong Kong	Early 1990s	5%
Singapore	Early 1990s	5%

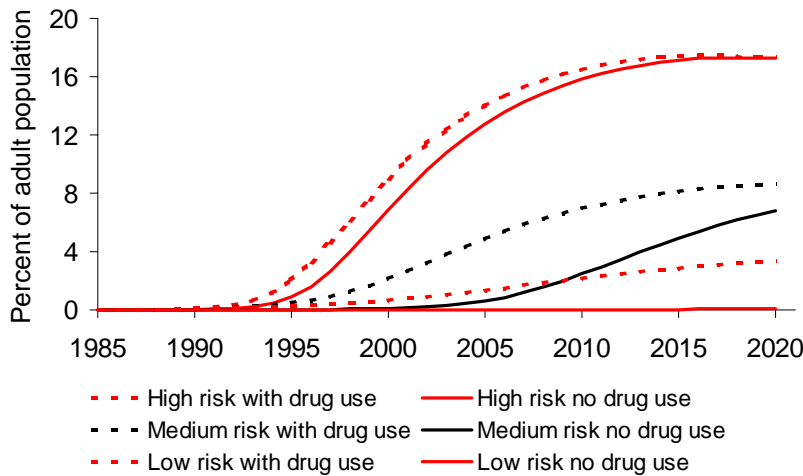


Figure 1 Projected percentage of adult population (15 years and older) infected with HIV through sex work and needle sharing among injecting drug users

Note: The high-risk projections assume that 20 percent of men visit sex workers in a year and sex workers have two clients per night. The medium-risk projections assume that 10 percent of men visit sex workers in a year and sex workers have one client per night. The low-risk projections assume that 5 percent of men visit sex workers in a year and sex workers have one client every other night. The projections with drug use assume that an epidemic in injecting drug users starts in 1990.

Consider Indonesia, for example. The epidemic among injecting drug users took off in 1998. Today about half of this group is HIV positive. At the same time, the prevalence rate among sex workers has risen to more than 6 percent in four provinces. Is there a link between these two epidemics? Very

likely. Similar influences might be expected from a major outbreak among men who have sex with men or migrant and returning overseas workers.

Where might these epidemics end up? In the high-risk countries, 15–17 percent of the adult population could become infected. In the middle-risk

countries, 5–7 percent of adults could become infected, and in the low-risk countries, 2–3 percent. These are not minor epidemics by any standard.

WHAT CAN BE DONE?

While the potential for expanding HIV epidemics is high, there is a positive side to the nature of risk in Asia—focused prevention can be incredibly effective in the region. Thailand and Cambodia offer good examples of what can be accomplished with a well-targeted prevention program. Despite what the models described above might indicate, neither of these countries reached national prevalence levels of 15 percent or more. Why?

Both the Thais and Cambodians identified sex work as the key source of new infections, and both governments mounted pragmatic and well-funded campaigns—aimed at clients and sex workers—warning of the risks involved in sex work and encouraging condom use. In both countries the number of sex-work clients went down by half over a three- to four-year period. And in both countries condom use in sex work increased to 90 percent or above.

As a result, HIV prevalence rates have fallen in virtually all surveillance groups. Prevalence among young Thai men fell from 4 percent in 1995 to about 1 percent today.

Studies of the Thai and Cambodian experience, combined with modeling of what the epidemic might have looked like without effective prevention, provide a useful lesson for those concerned with HIV epidemics in other countries of the region. Without effective prevention, Thailand would have more than 8 million people living with HIV today, or roughly 15 percent of the adult population (Figure 2). The situation in Cambodia would be much the same.

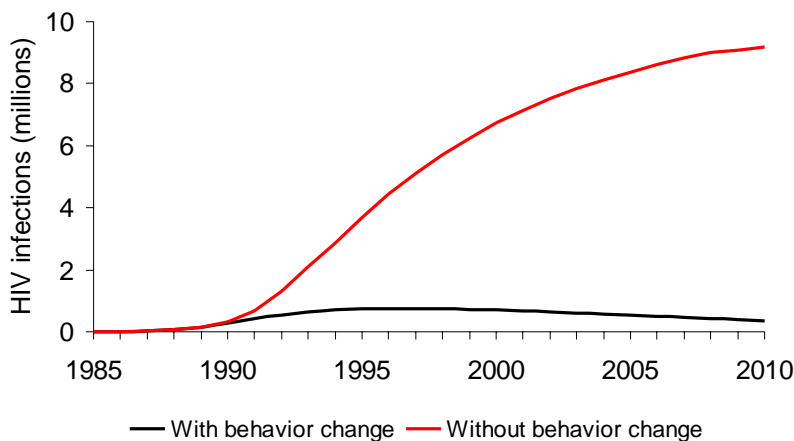


Figure 2 Observed and projected HIV prevalence in Thailand compared with expected prevalence in the absence of behavior change

Note: Behavioral changes were a drop in the number of sex-work clients by one half and an increase to 90 percent or higher of condom use in sex work.

Are other countries in Asia prepared to apply the lessons learned in Thailand and Cambodia? The outlook is worrying. Current prevention programs only cover a fraction of clients and sex workers. And programs for injecting drug users and men who have sex with men, where they exist at all, remain at the small-scale pilot stage. In the two largest countries of Asia, China and India, recent surveys show that half the population lacks even the most basic information on how to prevent HIV.

The clearest evidence of inadequate prevention programs is the low level of condom use among clients of sex workers. In China, Indonesia, and Bangladesh, fewer than one in five sex workers use condoms consistently.

The results of such low levels of condom use are clear. Take Vietnam, for example. According to the U.S. Bureau of the Census database, HIV prevalence among sex workers in 2001 was 12 percent in Hanoi and 23 percent in Ho Chi Minh City. Prevalence among men treated for sexually transmitted infections (who are largely sex-work clients) was 7 percent in Hanoi and 8 percent in Ho Chi Minh City. It is only a matter of time before HIV spreads outward from these urban populations into the rest of the country.

While it is true that Asian epidemics will almost certainly never rise to the levels seen in Sub-Saharan Africa, prevalence rates for the region as a whole could easily reach 2–5 percent over the next decade if effective prevention programs are not implemented. And every 1-percent increase in prevalence in India or China adds 5 million to the global total of people infected with HIV. If these two countries reach prevalence levels of only 2–3 percent, they will account for more than half of all infections in the world.

But while the threat is real, the situation in Asia also presents a significant opportunity. Because risk tends to

be concentrated in specific groups, well-targeted interventions can be very effective.

WHAT WILL WORK IN ASIA?

To be successful, prevention programs must be implemented with high coverage. Yet many political leaders find it difficult to acknowledge the level of HIV risk in their own societies. They may find it even more difficult to work with the stigmatized population groups who can help halt the epidemic—clients and sex workers, drug users, men who have sex with men, and people living with HIV.

To be successful, prevention programs must be initiated and then sustained over many years. When it comes to addressing issues of sex and drugs, most Asian countries face considerable religious and political resistance, which will take time to overcome. Access to the key at-risk populations is limited, and building bridges to these groups will also take time. And as the SARS epidemic has shown, the public-health infrastructure in many countries is limited and may take a decade or more to build. This means that starting early is essential—delays will be measured in lives lost.

Finally, prevention efforts must continuously adapt if they are to stay relevant. Even in the countries widely viewed as successful, there are major gaps. Neither Thailand nor Cambodia has addressed risk among men who have sex with men, despite HIV prevalence of about 15 percent in this group. In Thailand, programs for injecting drug users are limited and ineffective, and little has been done to address the increasing number of infections occurring within marriage as current and former sex-work clients infect their wives.

The stakes are high. If HIV prevalence reaches even 2–3 percent in Asian

countries, there will be a tremendous care burden. Despite Thailand's successful prevention efforts, more than 1 million Thais have been infected with HIV, and 450,000 have died. The growing care needs of the 600,000 Thais living with HIV in 2004 will remain a challenge for at least the next decade.

What can the international community do? First, donor governments and other organizations must advocate for and support appropriate, pragmatic, and effective responses. This means programs that focus on behaviors that make some people uncomfortable—sex work, injecting drug use, and male-male sex. Working with these groups today is the only way to protect the “general population” tomorrow.

Mounting an effective response means placing a strong emphasis on CNN (condoms and new needles), as opposed to the ABC (abstinence, be faithful, use condoms) strategy that some are advocating for Africa. Teaching people how to protect themselves and providing them with the means to do so will be more effective than trying to change culturally embedded behavior overnight.

Donors need to require accountability when they provide assistance. This means insisting on documentation of program coverage and impact. And they need to encourage countries to mobilize their own resources, perhaps through cost-sharing arrangements.

Asian governments, for their part, must anticipate care needs and provide compassionate, nondiscriminatory, and appropriate care for those living with HIV and AIDS. At the same time, they must build up and maintain focused prevention programs. Societies in Asia will bear much greater costs tomorrow, both in human and financial terms, should they fail to prevent expansion of the HIV epidemic today.

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