



# Using Data to Guide HIV/AIDS Prevention and Care

In East Asia and the Pacific

## The issue: low national prevalence masks localized epidemics

Although overall adult HIV prevalence in Asia is low - 0.4 per cent compared to 7.4 per cent in Africa <sup>1</sup> - national prevalence varies widely. Within countries of the region, there are disturbingly high prevalence rates among some sub-populations and within various geographic areas. These locations and sub-populations are where concentrated epidemics build up, with substantially higher HIV prevalence than national prevalence levels can adequately capture. Table 1 provides a snapshot of national and sub-national HIV prevalence levels in selected countries.

A marked, sudden increase of HIV prevalence has occurred among sub-populations in a number of countries, and those experiencing a generalized epidemic bring lessons about the importance of proactive, early actions. Often countries have acted too late when the prevalence among sub-populations has begun to spread through what is known as “bridge populations” or people closely associated with these sub-groups. These bridge populations include clients of sex workers, their wives and girlfriends as well as sex partners of injecting drug users and men who have sex with men.

Of equal importance is the fact that HIV prevalence increases because more people are entering the sex trade, buying sex and injecting drugs - many of whom are young. Addressing the vulnerability factors that put young people and women at risk of drug use and unsafe sex are just as necessary as tackling their exposure to HIV.

While HIV surveillance is in place in most countries, current data collection does not provide for a full understanding of vulnerability nor does it provide for the regular tracking of new behavioural patterns or for the long-term mitigation of risk. Furthermore, not all countries have instituted a regular reporting mechanism to feed provincial-level data to



### Action points:

The availability of data is fundamental to the effective control of HIV/AIDS and for the monitoring of progress towards national commitments, including the MDGs. The leadership of national governments and the international community is vital for the strengthening of data collection and improvements in data quality. The following steps are key to controlling the HIV/AIDS epidemic:

- Build consensus on common definitions of what constitutes risk groups as marked by their vulnerability to HIV/AIDS and including young people and children at risk of drug use and sex work. Similarly, build consensus on definitions in regard to children affected by AIDS, who may or may not have become orphans, and whose conditions merit special attention.
- Improve national capacity for the design, collection, analysis and utilisation of sentinel surveillance data. For example, there is also a need to initiate systematic collection of data on the number of orphans and children affected by AIDS.
- Improve the frequency of screening and surveillance among sub-groups, particularly considering that the epidemic can progress very quickly within a very short period of time.
- Improve the age, sex and occupational profiling of risk groups and those infected in order to facilitate more effective programming and to improve the use of data for strategic planning, including prioritizing and identifying types of interventions for different population groups.
- Improve epidemiological and survey research, which has been to date slow in capturing the spread of HIV in new communities and among groups who are at risk as a consequence of new behavioural patterns. This would include survey research on HIV and AIDS related knowledge studies as well as studies that investigate practices among different segments of the population.
- Improve the tracking of social attitudes and use findings to mount a combination of nationwide media and focused community campaigns to tackle stigma and discrimination.
- Improve the use of data for the costing of financial and human resource requirements, and for the mid-course adjustment of priorities and/or policies that would lead to an improved quality and coverage of programming.
- Collaborate closely with UN agencies and international donors for the timely sharing of national HIV/AIDS data to enable regional and global advocacy for HIV/AIDS response, to increase resources, and to facilitate improved programme design by international partners.
- Improve evaluation of all HIV and AIDS programmes; only through scientific research can there be certainty that programmes are yielding beneficial effects. To obtain a better picture, there is a definite need to assess changes in knowledge, attitudes, intentions, practice and HIV status regularly through behaviour surveillance, and linking such monitoring to large-scale, targeted prevention programmes.



a national AIDS programme to design the appropriate targeting of HIV-prevention efforts in order to halt the spread of the virus. There is wide agreement that behaviour change towards the use of condoms among young people (aged 15 to 24) who do not have a regular sexual partner is an effective strategy for reducing HIV risk. However, there are as yet insufficient mechanisms to identify who these young people might be, and how to reach them. In addition, there is little consensus on what constitutes “risk groups” beyond intravenous drug users, sex workers and men who have sex with men, and there are scant data on, or interest in, understanding young people’s risk behaviours, nor is there systematic monitoring of knowledge levels, or of life skills-based prevention efforts conducted among particular population groups, such as young men and women between ages 15 - 24.

There are countries where data collection efforts are challenged by social, cultural or political sensitivities surrounding unsafe sexual practices by ‘low-risk’ populations, including unmarried youth and married men, or in regard to the collection of data on women exposed to forced or coerced sex.

For HIV prevention and care interventions to be effective, it is important to obtain an accurate profile of the populations infected, as well as those who are vulnerable, not only to HIV risk, but to drug use, sex work and unsafe sex. To facilitate intensified interventions including voluntary and confidential testing and counselling, age and sex disaggregated data are important, especially at the sub-national level. Focused local outreach must accompany public education, including the education of children (beginning in primary school) to inculcate a strong sense of what constitutes a healthy lifestyle - before risk behaviours are developed. However, baseline data to guide such outreach are either unavailable, or not regularly collected or used to inform programming in most countries.

### Problems in using HIV/AIDS data for effective interventions

There is still a lack of consensus on definitions about what is being measured and/or who is being targeted for HIV/AIDS prevention or care. For example, definitions of population sub-groups such as ‘vulnerable’ or ‘highly vulnerable youth’, ‘at risk youth’, ‘vulnerable children’ or ‘children affected by HIV/AIDS’ frequently vary from one government and/or agency, to another.

Data on the coverage of interventions that target certain population groups are also rarely available, and even when they are, are often limited to small-scale programmes with no impact at the national level. Age or gender disaggregated data are also rarely available.

Globally, limited data on groups such as young people and children affected by AIDS hampers the effective monitoring and reporting of progress towards the Millennium Development Goals (MDGs). Moreover, there is no regional entity tasked with systematic collection and the continuous updating of a HIV/AIDS database for the East Asia and the Pacific region, nor is there a systematic data reporting mechanism in place to facilitate cooperation between countries and regional bodies for the monitoring and timely assessment of responses. At the national level, epidemiological or behavioural HIV/AIDS surveillance data are not readily available in a ‘user-friendly’ manner for planning and programming purposes. As a consequence, programmes and interventions continue to be designed without the use of or reference to the latest HIV/AIDS situation.

The decentralization of behavioural surveillance systems, as has been done in many countries, poses another set of problems which includes the sustainability of high-quality data collection and reporting due to limited local capacity and financial resources as well as insufficient implementation guidance.

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<sup>1</sup> UNAIDS & WHO 2004, AIDS Epidemic Update, December 2004

**Table 1: National and provincial HIV prevalence in selected countries of East Asia and the Pacific\***

Country	National Prevalence 2003 %	HIV prevalence in selected provinces/sites and among certain sub-populations							
		Pregnant women (antenatal) %		Injecting drug users %		Female sex workers %		Blood donors %	
<b>Cambodia</b>	1.9	Pailin Province	5.9	–	–	Koh Kong Province	51	–	–
						Siem Reap Province	37		
						Kampong Chhnang Province	37		
<b>China<sup>a</sup></b>	0.1	8 / 18 sentinel surveillance sites (2003)	0.3-5.3	Yili, Xinjiang Province (2003)	89	Selected areas of Yunnan, Guangxi, Guangdong & Hunan Provinces	1 - 6.7	Selected areas, Henan Province	> 40
				Wushi, Qinghai Province (2000)	38			Shuizhou, Hubei Province	33.7
								Heze, Shandong Province	8.9
<b>Indonesia</b>	0.1	Papua Province (five villages)	1.0	Bali <sup>b</sup>	53	Sorong, Papua	17	–	–
<b>Lao PDR</b>	0.1	–	–	–	–	Vientiane (2001)	1.1	–	–
						Savannakhet Province (2001)	1	–	–
<b>Malaysia</b>	0.4	All government antenatal clinics <sup>d</sup>	0.05	States in Eastern region <sup>c</sup>	36	Kuala Lumpur <sup>d</sup>	6.9	Peninsular	0.03
				States in Southern region <sup>e</sup>	24			Kelantan <sup>e</sup>	0.12
<b>Mongolia<sup>f</sup></b>	< 0.1	National STI prevalence (Antenatal care survey 2002)	31 (STI)	–	–	Ulaanbaatar (women reporting at least one STI)	67	–	–
<b>Myanmar</b>	1.2	Dawei Province	4	Yangon	54	Yangon (2001)	26	–	–
		Tachilek	4	Mandalay	56	Mandalay (2001)	41		
				Myitkyina & Bhamo	53				
				Lashio	56				
<b>Papua New Guinea</b>	1.7 <sup>g</sup>	Lae	2.5	–	–	Port Moresby (2000)	16	Port Moresby (2003)	0.38 <sup>g</sup>
		Daru	0.6	–	–				
<b>Philippines<sup>h</sup></b>	< 0.1	–	–	Cebu City	2	9/10 surveillance sites, including Cebu, Davao and Pasay Cities	> = 1	–	–
<b>Thailand<sup>i</sup></b>	1.5	Trat Province	4.5	Bangkok	52	Phrea Province	82	National sample	0.23
						Mae Hong Son	37.5		
						Lamphun	19.7		
<b>Timor-Leste</b>	< 0.1	–	–	–	–	Dili <sup>j</sup>	3	Dili <sup>k</sup>	0.56
<b>Vietnam</b>	0.4	Lang Son Province	1.9	Ho Chi Minh City	84	Thanh Hoa	25.5	–	–

\* Unless otherwise indicated, data are derived from the UNAIDS/UNICEF/WHO Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections

<sup>a</sup> A Joint Assessment of HIV/AIDS Prevention, Treatment and Care in China (2004), by State Council AIDS Working Committee Office & UN Theme Group on HIV/AIDS in China

<sup>b</sup> Monitoring the AIDS Pandemic (MAP): AIDS in Asia: Face the Facts, 2004

<sup>c</sup> Data from Study by Zainuddin et al. 2001, National Strategic Plan of HIV/AIDS, HIV/AIDS Section, Disease Control Division, Ministry of Health, 2004

<sup>d</sup> National Strategic Plan of HIV/AIDS, AIDS STD Section, Disease Control Division, Ministry of Health, 2004

<sup>e</sup> HIV/AIDS Epidemic in Malaysia, 1986-2003, Ministry of Health, 2003

<sup>f</sup> HIV/AIDS Risk and Vulnerability: Young People and Children in Mongolia, a Strategic Framework, 2004

<sup>g</sup> Concenses workshop on HIV/AIDS in Papua New Guinea, 17-18 Nov, 2004

<sup>h</sup> Dept. of Health, National Epidemiology Center. "Status and Trends of HIV/AIDS/STI in the Philippines: 2003 Technical Report of the National HIV/AIDS/STI Surveillance System"

<sup>i</sup> Bureau of AIDS, TB and STIs, Dept. of Disease Control, Ministry of Health, Thailand, 2004

<sup>j</sup> Dili STI Survey Team, 2001;

<sup>k</sup> WHO, Timor-Leste, 2004

national authorities for the timely adjustment of policies and programmes, and preventive intervention is neither designed, improved or scaled up by acting upon the most updated sub-national surveillance data. In many countries, severe stigma and discrimination continue to undermine efforts to mount a rapid response.

AIDS is an emergency, and a pressing issue of vast socio-economic consequence. The comparatively low regional and national HIV prevalence in East Asia and the Pacific region hides a potentially explosive condition. Governments and political leaders can achieve a quick turnaround by stepping up systematic tracking and timely prevention measures, and countries that are experiencing low-level and/or concentrated epidemics still have, more than other countries, a remarkable opportunity to avoid the AIDS scourge that is now directly affecting 39.4 million people worldwide, half of whom are women.

### What drives the epidemic

The sub-populations infected with HIV in East Asia in the early stages of the epidemic were injecting drug users, sex workers and men who have sex with men. More recently, young women and men not belonging to any of these sub-populations have become infected and the epidemic is rapidly spreading to the general population. Not surprisingly, infection rates among infants are also on the rise.

Figure 1 shows the initial epidemic among intravenous drug users during the late 1980s in Thailand. The rise in prevalence among intravenous drug users was followed by rapid rises in infection rates among sex workers and their clients, and then by increased prevalence among pregnant women. This epidemic pattern is observed in most countries in the region. At the later stage, injecting drug users, sex workers, and men who have sex with men no longer form the bulk of new infections - the epidemic shifts towards children and women who are being infected by their male sexual partners.

### Socio-economic impact of HIV/AIDS on the increase

The number of adults and children living with HIV/AIDS in East Asia and the Pacific is already growing, with 2.3 million currently estimated as infected. The spread of HIV among sub-groups is not an issue that can be overlooked, given the pattern with which the AIDS epidemic is expanding, and, as always, the number of people affected is much higher than those infected. Children, husbands, wives and extended family members bear the brunt of the work and costs of care related to HIV infection. Though the currently low adult prevalence rates in the region do not as yet translate into a discernible impact on death rates, life expectancies or economic growth at the national level, the socio-economic consequences of the epidemic are being increasingly felt. According to UNAIDS and the Asian Development Bank:

- Many households have fallen below the poverty line due to the costs associated with HIV/AIDS;
- In Cambodia, poverty reduction could be slowed by up to 60 per cent, and in Thailand by 38 per cent as a consequence of the HIV/AIDS epidemic; and
- The resources needed for a comprehensive HIV prevention, care and treatment response in 2003 was estimated at USD1.5 billion for countries in the Asia and Pacific. However, for the same year only USD 200 million, in total, was made available by governments, the public sector and donors combined.

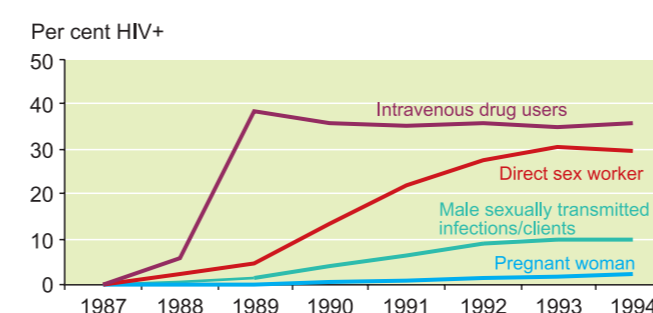
Without a rapidly scaled-up response in the region, there may be as many as 10 million new infections by 2010. Even if a comprehensive HIV response reaches all at high risk of HIV, the total cost of the care and treatment for the millions already infected is substantial. Any delay in response to HIV will increase those costs markedly.

### Challenges in collection of HIV/AIDS data

More than twenty years into the AIDS pandemic, the world has learned a lot about how to deal with this communicable disease. But the epidemic's continued escalation is worrisome, and there are increased concerns as to whether current data are adequate to guide interventions targeted at sub-groups and those increasingly at risk, such as young people and women. For early actions to be effective there will need to be ongoing interventions that address vulnerability and prevent more people from adopting drug use and taking up sex work. In addition, there needs to be a strengthening of capacities to convince partners of the effectiveness of condom use.

Though HIV sentinel surveillance has been established in many countries, the limited geographical coverage of sentinel surveillance does not always allow for a complete understanding of the epidemic, particularly in large countries where populations are spread out. Furthermore, while WHO has recommended the introduction of second-generation surveillance systems to examine, over time, epidemiological and behavioural trends many countries are yet to follow this recommendation. Epidemiological and behavioural data for some population groups, such as men having sex with men, and in some areas for female sex workers and intravenous drug users, are not always systematically collected which hampers efforts to understand and respond to epidemics in a timely manner. Aside from well-identified sub-groups, there are increased concerns in regard to the absence of systematic tracking of HIV vulnerability among young people in general. Such tracking allows

**Figure 1: Development of the early Thai Epidemic**



Source: Bureau of Epidemiology, Thai Ministry of Public Health in: Tim Brown, *The Epidemic in Asia – Dynamics and Projections* Compilation of Presentations East West Centre / UNAIDS / Thai Red Cross AIDS Research Centre



### Some key concepts:

#### HIV prevalence

HIV prevalence refers to the overall number of HIV infections in a population at a particular time. National prevalence measures the number of infections against the general population, whereas prevalence among sub-groups measures the number of infections against the estimated population of a particular sub-group. National prevalence may vary or remain constant, for example, depending on the balance between those who die from AIDS, which decreases prevalence, and the number of new infections, which increases prevalence.

#### Incidence

Incidence is a measure of new infections at a particular period. A decline in the overall prevalence does not necessarily mean that new infections have been prevented. The overall prevalence can mask the incidence of HIV in different populations: some sub-groups such as female sex workers may show decline while, for others, the number of new infections may be increasing, e.g. wives and girlfriends of clients of sex workers or injecting drug users.

#### Low-level epidemic

HIV prevalence does not consistently exceed 5 per cent in any vulnerable groups or sub-groups.

#### Concentrated epidemic

HIV prevalence consistently exceeds 5 per cent in vulnerably groups, but below 1 per cent in women attending antenatal clinics.

#### Generalized epidemic

HIV prevalence of over 1 per cent in women attending antenatal clinics.

#### Second generation surveillance

Second generation surveillance systems are intended to provide a more comprehensive picture of the HIV/AIDS pandemic. WHO has developed guidelines for such surveillance, recommending monitoring of behaviours that are likely to put people at risk of infection (e.g. unprotected sex) and using supplementary sources of information, such as reproductive health surveys and surveillance of other related diseases, such as tuberculosis

Source: Adapted from WHO guidelines, published in "HIV/AIDS in the Mekong Region", Policy Project, Bureau for Asia and the Near East, US Agency for International Development, June 2003