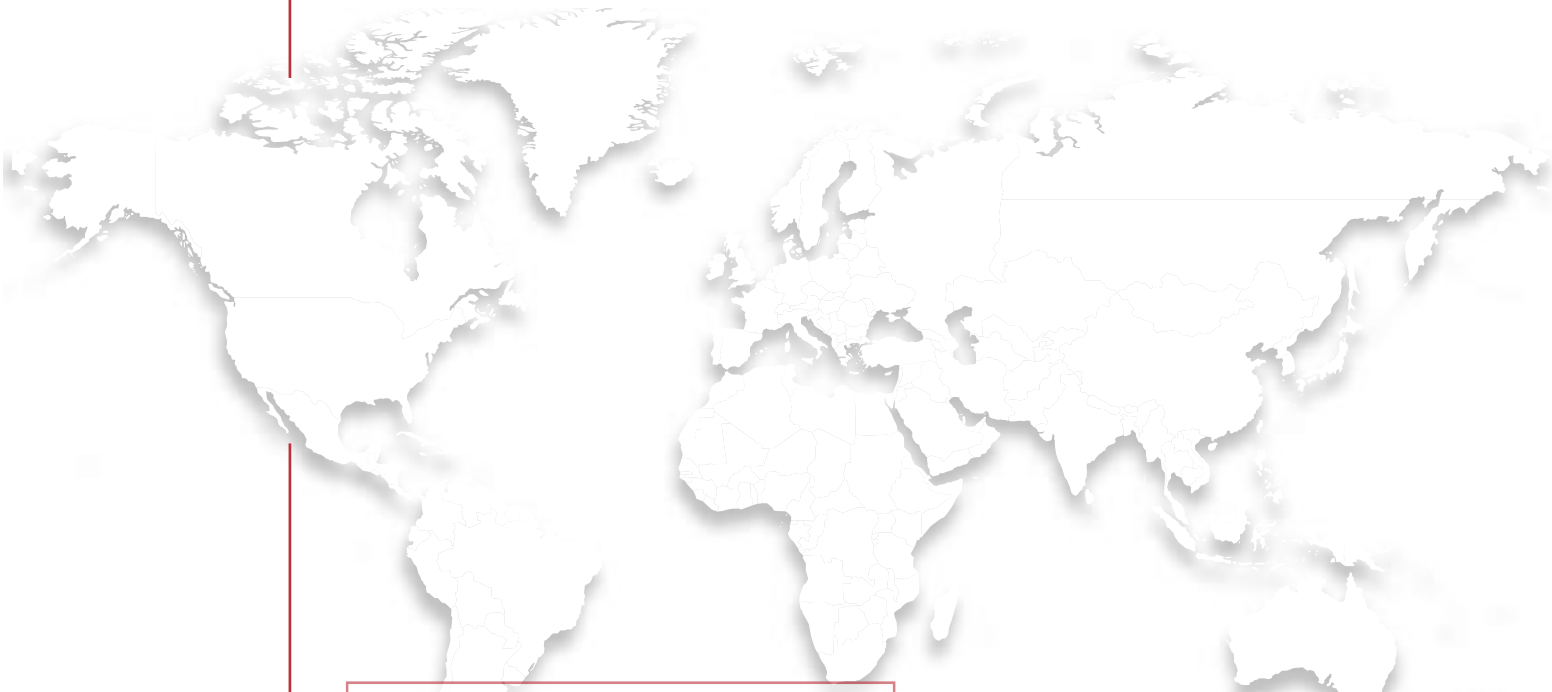
AIDS epidemic update

December 2003



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AIDS epidemic update: December 2003

PREFACE

New estimates show increasing numbers of people living with HIV/AIDS

Two of the core functions of the Joint United Nations Programme on HIV/AIDS (UNAIDS) involve tracking the epidemic and developing strategic information to guide AIDS responses across the world. Accordingly, the UNAIDS Secretariat and the World Health Organization (WHO) produce an annual *AIDS epidemic update* that reflects the current knowledge and understanding of the epidemic.

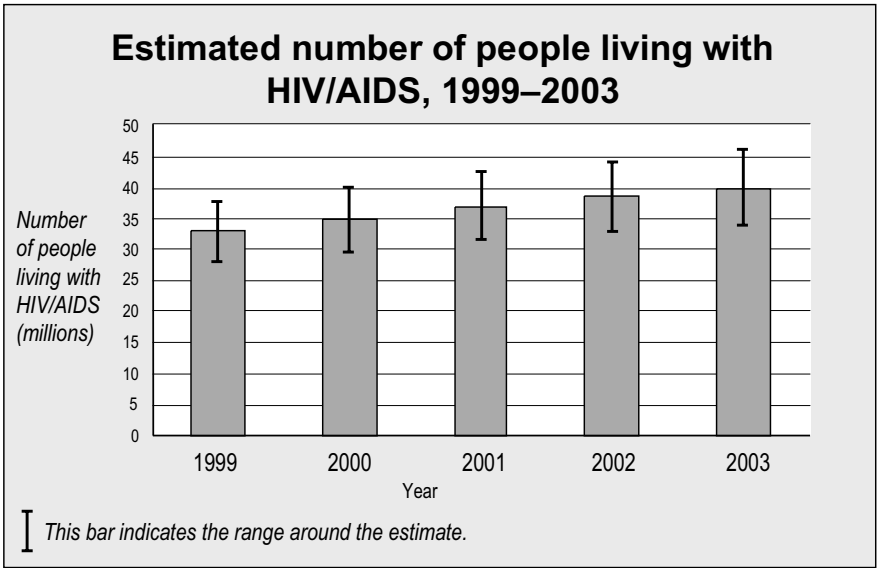
The latest UNAIDS and WHO estimates published in this *AIDS epidemic update* are lower than those published in 2002. But the number of people living with HIV/AIDS is not actually lower, nor is there a decline in the epidemic. Better data and understanding have enabled the UNAIDS Secretariat and WHO to arrive at more accurate estimates (see graphs on page 2).

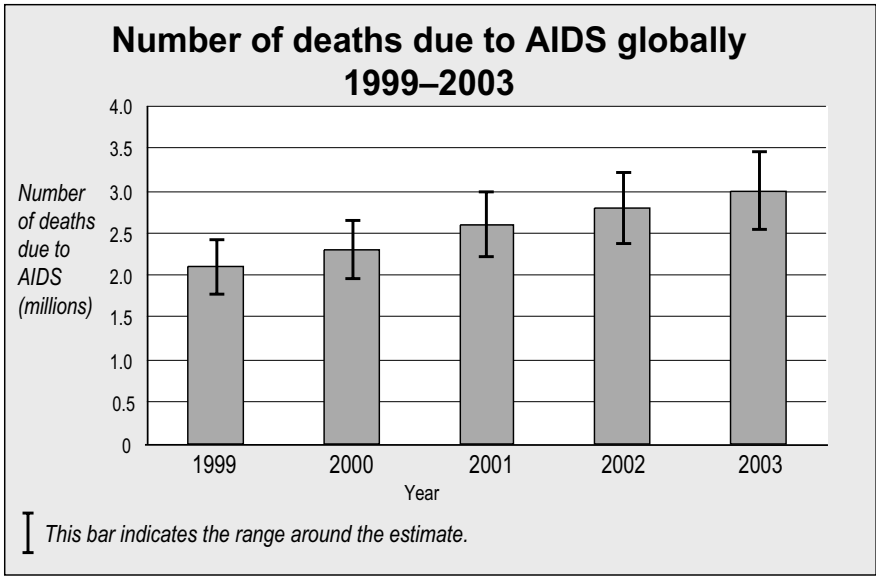
This report presents both estimates and ranges around these estimates to indicate their level of precision.

During the past year, the UNAIDS Secretariat has been working with WHO, the Futures Group, the US Centers for Disease Control and Prevention, Family Health International, and the East-West Center to enhance skills for capturing, validating and interpreting HIV-related data and to build capacity for modelling and estimation in 130 countries. As well, new and different sources of data, such as national household surveys, are enabling more accurate estimates and more refined understanding of the epidemic's trends (see box on page 6). Tools and methods are constantly reviewed and improved by a group of experts in the UNAIDS Reference Group on Estimates, Modelling and Projections. Over the past three years, this group has brought together researchers and public health experts from 23 countries from all regions. In light of these continuous improvements, comparisons with previously published estimates can be misleading.

This *AIDS epidemic update* presents both estimates and ranges around these estimates to indicate their level of precision. The text refers to estimates, the maps show ranges and the tables include both. The ranges reflect the degree of uncertainty associated with estimates and define the boundaries within which the actual numbers lie, based on the best available information.

Applying the improved tools and methods to previous years shows there have been steady increases in the number of people living with HIV/AIDS, as well as in the number of AIDS deaths. The number of people living with HIV/AIDS continues to increase in several regions, most markedly in sub-Saharan Africa, with Southern Africa registering the highest prevalence. Asia and the Pacific as well as Eastern Europe and Central Asia continue to experience expanding epidemics, with the number of people living with HIV/AIDS growing year by year.





The UNAIDS Secretariat, WHO and their partners will continue to refine the tools and the processes through which data are generated and analysed. An important part of this work is to assist countries in improving HIV data collection, validation, modelling and estimates in order to guide effective responses to the global epidemic at country level.

GLOBAL SUMMARY OF THE HIV/AIDS EPIDEMIC DECEMBER 2003

Number of people living with HIV/AIDS	**Total**	**40 million (34 – 46 million)**
	Adults	37 million (31 – 43 million)
	Children under 15 years	2.5 million (2.1 – 2.9 million)
People newly infected with HIV in 2003	**Total**	**5 million (4.2 – 5.8 million)**
	Adults	4.2 million (3.6 – 4.8 million)
	Children under 15 years	700 000 (590 000 – 810 000)
AIDS deaths in 2003	**Total**	**3 million (2.5 – 3.5 million)**
	Adults	2.5 million (2.1 – 2.9 million)
	Children under 15 years	500 000 (420 000 – 580 000)

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information. These ranges are more precise than those of previous years, and work is under way to increase even further the precision of the estimates that will be published mid-2004.

INTRODUCTION

The global HIV/AIDS epidemic killed more than 3 million people in 2003, and an estimated 5 million acquired the human immunodeficiency virus (HIV)—bringing to 40 million the number of people living with the virus around the world.

In sub-Saharan Africa, HIV prevalence has remained relatively steady—generally at high levels—for the past several years across much of the region. This is due to the fact that high levels of new HIV infections are persisting and are now matched by high levels of AIDS mortality. In a belt of countries across Southern Africa, HIV prevalence is maintaining alarmingly high levels in the general population. In other sub-Saharan African countries, the epidemic has gained a firm foothold and shows little sign of weakening—with the exception of some positive indications from mostly urban areas in a few countries in eastern Africa. The trend offers no comfort.

The epidemic in sub-Saharan Africa, in other words, remains rampant. How long it will stay like this will depend on the vigour, scale and effectiveness of prevention, treatment and care programmes. Urgent and dramatic headway is required on all these fronts, and in unison. Anything less will spell failure.

The global response has expanded significantly in the past two-to-three years. Spending (domestic and external) on HIV/AIDS programmes in low- and middle-income countries increased again in 2003, notably in sub-Saharan Africa. Dozens of national AIDS coordinating bodies are now in operation, and a growing number of countries (many of them in Africa) have begun extending antiretroviral and other AIDS-related medications to their citizens. But, at the moment, these developments do not match the region's epidemics in scale or pace.

Antiretroviral treatment coverage remains dismal in sub-Saharan Africa overall, despite recent efforts in countries such as Botswana, Cameroon, Nigeria and Uganda. WHO—the convening agency for HIV care in the Joint United Nations Programme for HIV/AIDS (UNAIDS)—and partners are developing a comprehensive global strategy to bring antiretroviral treatment to 3 million people by 2005. Dramatic and sustained increases in resources and political commitment—including from hard-hit countries themselves—are needed in order to reach that goal. The policies and practices used to achieve that goal must ensure that treatment access is equitable and that it benefits the poor and marginalized sections of societies, especially women.

Alongside that huge challenge stands the urgent need to boost prevention programmes. More effective prevention and much wider treatment access should go hand in hand. Prevention efforts can slow the spread of HIV, and antiretroviral treatment blunts the impact of AIDS.

Although basic knowledge of HIV/AIDS has increased among young people in recent years, it is still disturbingly low in many countries, especially among young women. In too many places, voluntary counselling and testing services are still conspicuous in their absence, and a mere 1% of pregnant women in heavily-affected countries have access to services aimed at preventing mother-to-child HIV transmission. Coverage of these and other vital prevention services must be extended as a matter of urgency. Equally important are steps to cushion communities against the epidemic's impact. It is astounding that most countries with widespread epidemics do not yet have extensive programmes in place to provide appropriate care to orphans.

REGIONAL HIV/AIDS STATISTICS AND FEATURES, END OF 2003

Region	Adults and children living with HIV/AIDS	Adults and children newly infected with HIV	Adult prevalence (%)*	Adult & child deaths due to AIDS
Sub-Saharan Africa	25.0 – 28.2 million	3.0 – 3.4 million	7.5 – 8.5	2.2 – 2.4 million
North Africa & Middle East	470 000 – 730 000	43 000 – 67 000	0.2 – 0.4	35 000 – 50 000
South & South-East Asia	4.6 – 8.2 million	610 000 – 1.1 million	0.4 – 0.8	330 000 – 590 000
East Asia & Pacific	700 000 – 1.3 million	150 000 – 270 000	0.1 – 0.1	32 000 – 58 000
Latin America	1.3 – 1.9 million	120 000 – 180 000	0.5 – 0.7	49 000 – 70 000
Caribbean	350 000 – 590 000	45 000 – 80 000	1.9 – 3.1	30 000 – 50 000
Eastern Europe & Central Asia	1.2 – 1.8 million	180 000 – 280 000	0.5 – 0.9	23 000 – 37 000
Western Europe	520 000 – 680 000	30 000 – 40 000	0.3 – 0.3	2 600 – 3 400
North America	790 000 – 1.2 million	36 000 – 54 000	0.5 – 0.7	12 000 – 18 000
Australia & New Zealand	12 000 – 18 000	700 – 1 000	0.1 – 0.1	<100
TOTAL	**40 million (34 – 46 million)**	**5 million (4.2 – 5.8 million)**	**1.1% (0.9 – 1.3%)**	**3 million (2.5 – 3.5 million)**

* The proportion of adults (15 to 49 years of age) living with HIV/AIDS in 2003, using 2003 population numbers.

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information. These ranges are more precise than those of previous years, and work is under way to increase even further the precision of the estimates that will be published mid-2004.

Emerging epidemics

Beyond sub-Saharan Africa, more recent epidemics continue to grow—in China, Indonesia, Papua New Guinea, Viet Nam, several Central Asian Republics, the Baltic States, and North Africa. Viet Nam, for example, provides fresh evidence of how an HIV/AIDS epidemic can erupt suddenly wherever significant levels of injecting drug use occurs. It has joined a growing list of countries in Asia, Eastern Europe, the Middle East and Latin America, where injecting drug use has primed HIV/AIDS epidemics. In such settings, as in the epidemic generally, stigma and discrimination rank high among the obstacles that hinder efforts to turn the tide of AIDS (see page 31).

The same holds true for sex between men—a reality that is as ubiquitous as it is stigmatized and denied, and one that continues to feature in many of the epidemics coursing through the Americas, Asia, North Africa and Europe. Yet, even when evidence points to the prominence of this mode of transmission in the epidemic, HIV surveillance, research, prevention, care and support activities often by-pass men who have sex with men.

At the crossroads

Globally, the AIDS response is moving into a new phase. Political commitment has grown stronger, grass-roots mobilization is becoming more dynamic, funding is increasing, treatment programmes are shifting into gear, and prevention efforts are being expanded.

Improving the accuracy of HIV estimates

National estimates of HIV prevalence in countries with generalized epidemics are based on data generated by surveillance systems that focus on pregnant women who attend a selected number of sentinel antenatal clinics. UNAIDS and WHO, in close consultation with countries, employ a six-step method to obtain estimates of HIV prevalence for men and women, and an increasing number of countries have adopted these methods to develop national estimates.

This method assumes that HIV prevalence among pregnant women is a good approximation of prevalence among the adult population (aged 15–49). Studies conducted at subnational level in a number of African countries have provided the evidence for this assumption (by directly comparing HIV prevalence among pregnant women at antenatal clinics to that detected among the adult population in the same community).

Recently, several African countries have conducted national population-based surveys that included voluntary HIV testing. The results have been compared to estimates of adult prevalence of HIV based on sentinel surveillance systems. A comparison of data from the 2001 national survey in Zambia with data from the surveillance system has confirmed the assumption that HIV prevalence among pregnant women is roughly equivalent to the prevalence among the adult population, in both urban and rural areas.

Both sources of data have advantages and disadvantages. On the one hand, national population-based surveys capture a much wider representation of the general population than do antenatal clinics (and can yield information on HIV prevalence among men and non-pregnant women). They also provide better coverage of rural populations than antenatal clinic-based surveillance. On the other hand, the fact that some respondents refuse to participate or are absent from the household adds considerable uncertainty to survey-based HIV estimates (with non-response rates ranging from 24% to 42% in the recent surveys carried out in African countries). The estimates can be adjusted if the basic characteristics of the non-responders can be discerned. But there is still an important blind spot: the survey cannot measure the possible association between a person's absence or refusal to participate and increased HIV prevalence. The upshot is that population-based surveys are likely to underestimate true HIV prevalence in most cases (to varying extents, depending on the country).

But how accurate are HIV estimates derived from antenatal clinic data? Those are based on a set of assumptions that may not apply equally well to all countries and at all stages of the epidemic. In addition, most antenatal clinic-based surveillance systems have limited geographical coverage, which can lead to wide variations in the quality of the national estimate of HIV prevalence across countries.

There is no gold standard for HIV surveillance. All HIV estimates need to be assessed critically—whether they are based on a national survey or on sentinel surveillance data. Antenatal clinic-based data are especially useful for gauging HIV trends. National surveys help fill out our picture of the epidemic. Conducted at three-to-five-year intervals, such surveys can serve as valuable components of surveillance systems and can help improve estimates of the levels and trends in HIV prevalence.

But, measured against the scale of the global epidemic, the current pace and scope of the world's response to HIV/AIDS fall far short of what is required. The struggle against AIDS has reached a crossroads: either we inch along making piecemeal progress, or we now turn the full weight of our knowledge, resources and commitment against this epidemic. The choice is clear.

SUB-SAHARAN AFRICA

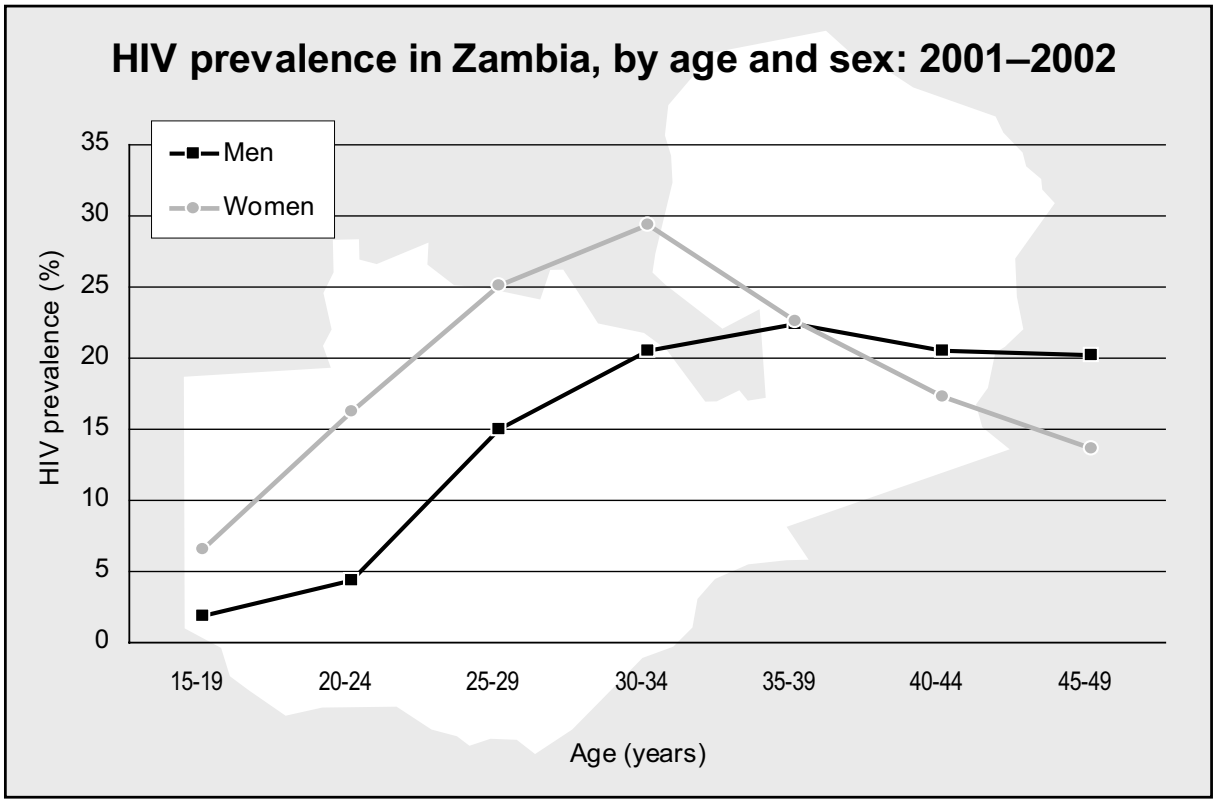
High levels of new HIV infections are persisting and are now matched by high levels of AIDS mortality.

Sub-Saharan Africa remains by far the region worst-affected by the HIV/AIDS epidemic. In 2003, an estimated 26.6 million people in this region were living with HIV, including the 3.2 million who became infected during the past year. AIDS killed approximately 2.3 million people in 2003.

Unlike women in other regions in the world, African women are considerably more likely—at least 1.2 times—to be infected with HIV than men. Among young people aged 15–24, this ratio is highest (see Figure 1): women were found to be two-and-a-half times as likely to be HIV-infected as their male counterparts, according to six recent national surveys. These discrepancies have been attributed to several factors. They include the biological fact that HIV generally is more easily transmitted from men to women (than vice versa). As well, sexual activity tends to start earlier for women, and young women tend to have sex with much older partners.

HIV prevalence varies considerably across the continent—ranging from less than 1% in Mauritania to almost 40% in Botswana and Swaziland. More than one in five pregnant women are HIV-infected in most countries in Southern Africa, while elsewhere in sub-Saharan Africa median HIV prevalence[1] in antenatal clinics exceeded 10% in a few countries. And while sustained prevention efforts in a few

Figure 1



Source: Zambia Demographic and Health Survey, 2001-2002

[1] Median prevalence represents a middle point, with equal numbers above and below that point

countries in West and East Africa (principally Senegal and Uganda) continue to demonstrate that HIV/AIDS can be checked with human intervention, signs that similar inroads might be building in **Southern Africa** remain tenuous, at best.

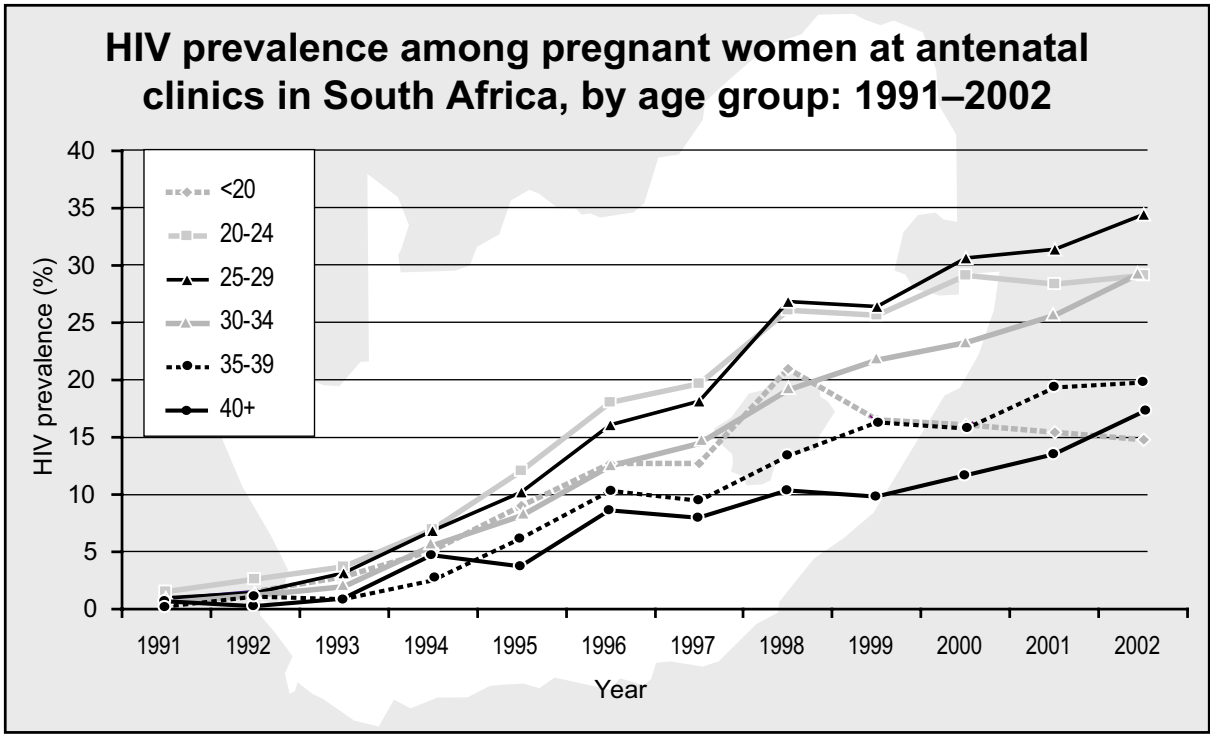
A trend analysis of antenatal clinic sites in eight countries (between 1997 and 2002) shows HIV prevalence among pregnant women levelling off at almost 40% in Gaborone (Botswana) and Manzini (Swaziland), and at almost 16% in Blantyre (Malawi) and 20% in Lusaka (Zambia). Prevalence exceeded 30% in South Africa's mainly urban Gauteng province (which includes Johannesburg), while median HIV prevalence in Maputo (Mozambique) was 18% in 2002. (Note that HIV prevalence among pregnant women in rural areas of Southern Africa is, on the whole, significantly lower than among their urban counterparts. The subregion, though, is the most urbanized on the continent, with more than 40% of the population living in urban areas.)

Southern Africa is home to about 30% of people living with HIV/AIDS worldwide, yet this region has less than 2% of the world's population.

As elsewhere on the continent, prevention (and, increasingly, treatment and care) programmes have been stepped up in this subregion. Even when effective, such efforts can take several years to manifest in declining HIV prevalence trends. At the moment, there is scant evidence of such a decline in Southern Africa. However, there has been a trend of falling HIV prevalence among young women attending antenatal care in Lilongwe (Malawi), where prevalence among young women (aged 15–24) was almost 23% in 1996 and dropped to 15% in 2001. Whether this is an aberration or is associated with safer sexual behaviour remains to be seen.

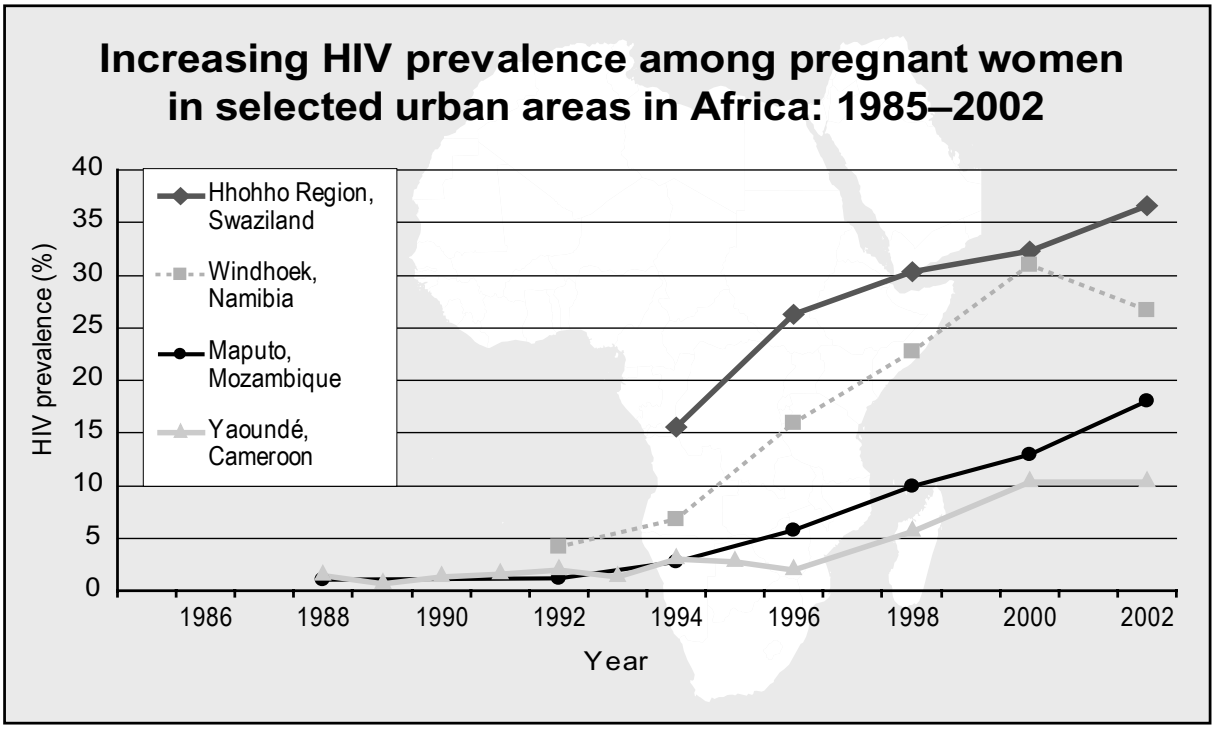
In South Africa, 2002 surveillance data show that, countrywide, the average rate of HIV prevalence in pregnant women attending antenatal clinics has remained roughly at the same high levels since 1998—ranging between 22% and 23% in 1998–1999 and then shifting even higher to around 25% in 2000–2002. A

Figure 2



Source: Department of Health, South Africa

Figure 3



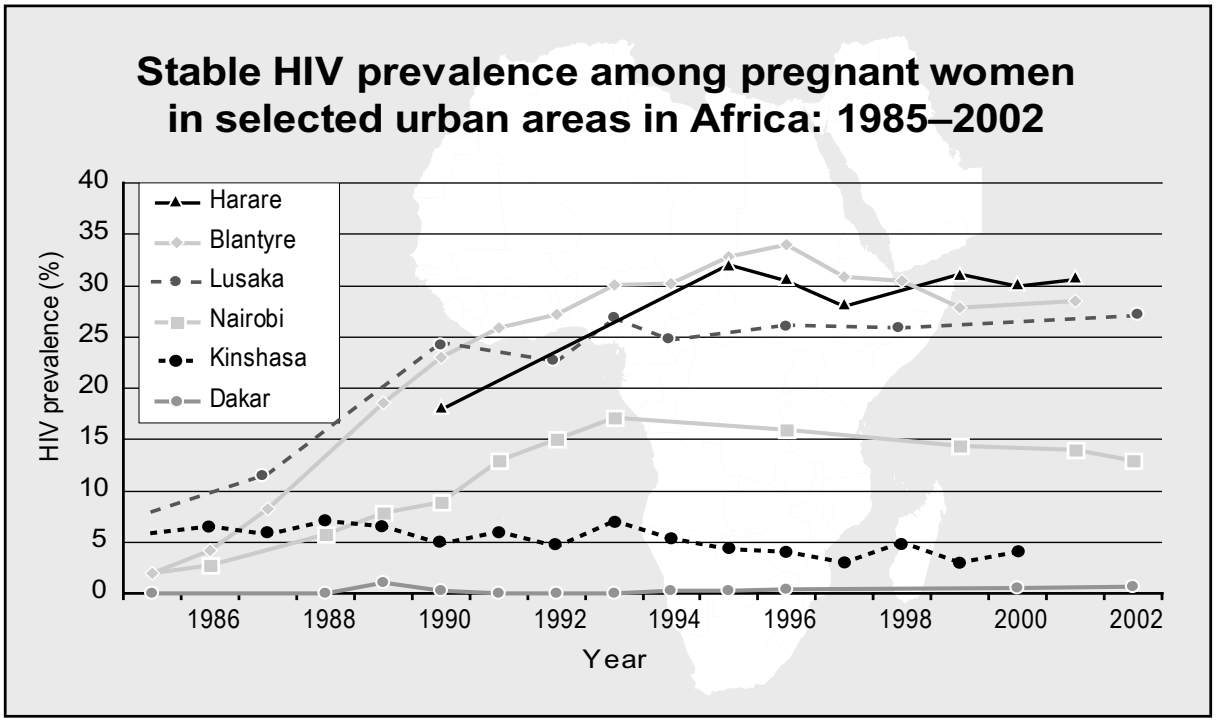
Source: National AIDS Programmes (partly compiled by the US Census Bureau)

slight decline in prevalence among teenage pregnant women aged 15–19 has been offset by consistently high HIV levels among 20–24-year-old pregnant women and rising levels among those aged 25–34. In five of the country's nine provinces—including the most populous ones—at least 25% of pregnant women are now HIV-positive. The epidemic varies within South Africa, however. At almost 37%, HIV prevalence among antenatal clinic attendees in KwaZulu-Natal is about three times higher than in the Western Cape—the province with the lowest prevalence. Based on the country's latest national round of antenatal clinic-based surveillance, it is estimated that 5.3 million South Africans were living with HIV at the end of 2002. Because of South Africa's relatively recent epidemic, and given current trends, AIDS deaths will continue to increase rapidly over the next five years at least; in short, the worst still lies ahead. A speedily-realized national antiretroviral programme could significantly cushion the country against the impact.

In four neighbouring countries—Botswana, Lesotho, Namibia and Swaziland—the epidemic has assumed devastating proportions. There, HIV prevalence has reached extremely high levels without signs of levelling off. In 2002, national HIV prevalence in Swaziland matched that found in Botswana: almost 39%. Just a decade earlier, it had stood at 4%. Neither Botswana nor Swaziland presents signs of incipient decline in HIV prevalence among young pregnant women aged 15–24. HIV prevalence in antenatal sites in Namibia rose to over 23% in 2002, while Lesotho's most recent data (collected in 2003) show median HIV prevalence among antenatal clinic attendees climbing to 30%.

Figures released in Zimbabwe this year have been interpreted to suggest that national adult HIV prevalence has dropped from the end-2001 estimate of 34% to 25% and that the country is turning its epidemic around. Unfortunately, there appears to be no basis for this view. The new figure represents a statistical correction of the 2001 estimate, which had relied on antenatal data that included a significant proportion of testing irregularities. (In addition, new data have become available for some rural areas, and the latest census has indicated that Zimbabwe has a smaller total population than previously assumed.) The corrected estimates therefore show no actual decline in HIV prevalence in the country, but do confirm the levelling off of prevalence rates at very high levels since the late 1990s. Also, an assessment of trends in the same 13 antenatal clinics with data since 1997 shows little evidence of a decline.

Figure 4



Source: National AIDS Programmes (partly compiled by the US Census Bureau)

There are signs that the epidemic has levelled off in Zambia, where national HIV prevalence has remained stable since the mid-1990s. A national population-based survey in 2001–2002 found that almost 16% of 15–49-year-olds who agreed to be tested were HIV-positive. The findings of the survey were consistent with the antenatal clinic-based surveillance data for 2001.

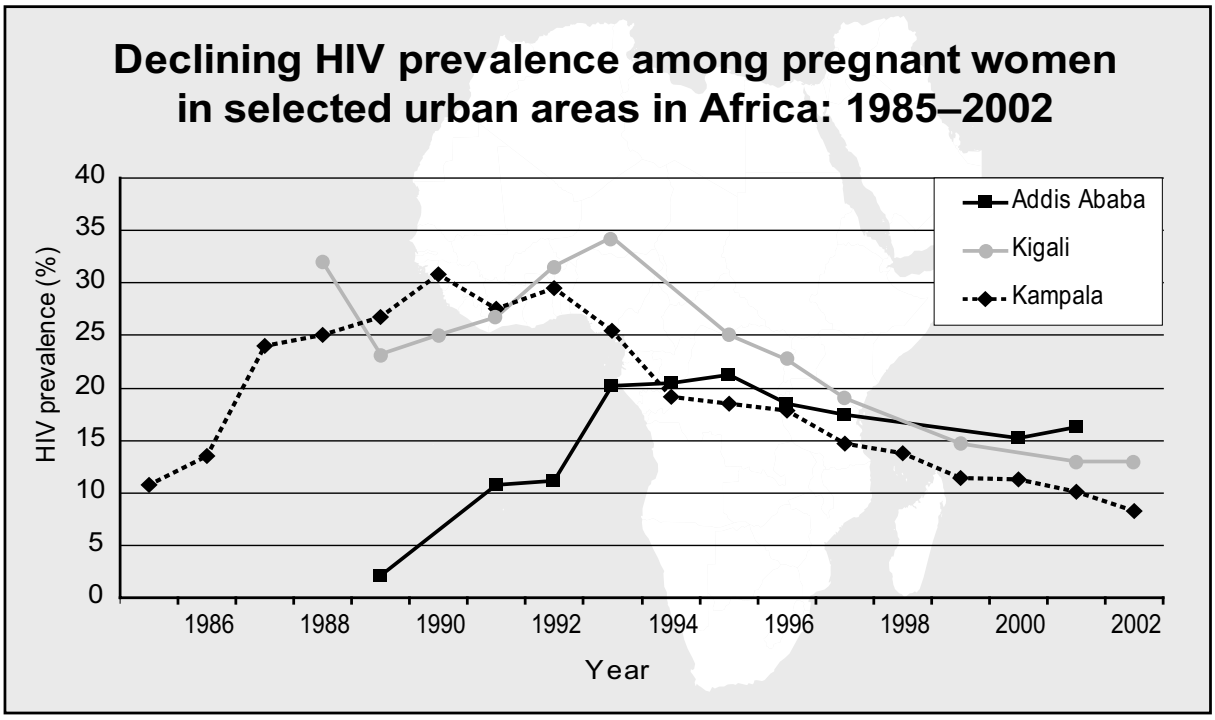
In Mozambique, median HIV prevalence varied from 8% among pregnant women in the north, to 15% and 17%, respectively, in the centre and south. Median HIV prevalence among antenatal clinic attendees from 36 sites was 14%, with the prevalence rate among antenatal clinic attendees highest in Mabote (Inhambane province) at 36%. The lowest rate—4%—was found among pregnant women in Mavago (Niassa province).

Angola gives cause for concern despite the comparatively low HIV levels detected to date. After almost four decades of war, huge population movements are under way. Millions of people have been able to leave the cities and towns they had been trapped in, internal and cross-border trading movements are resuming, and an estimated 450,000 refugees are returning (many from neighbouring countries with high HIV prevalence rates). Such conditions could prime a sudden eruption of the epidemic. In Luanda, preliminary results of HIV prevalence testing in five antenatal clinics suggest a median HIV prevalence of around 3%, although a 2001 survey of sex workers in Luanda indicated that 33% of them were HIV-positive. While too little accurate information is available on the epidemic's advance elsewhere in Angola, there is no doubt that the country's HIV/AIDS response leaves much room for improvement. Prevention activities are few and far between, very few voluntary testing centres have been established, and levels of HIV/AIDS knowledge are very low.

A distinct picture emerges in **East Africa** and parts of **Central Africa**. HIV prevalence continues to recede in Uganda, where it fell to 8% in Kampala in 2002—a remarkable feat, considering that HIV prevalence among pregnant women in two urban antenatal clinics in the city stood at 30% a decade ago. Similar declines echo this accomplishment across Uganda, where double-digit prevalence rates have now become rare.

To date, no other country has matched this achievement—at least, not nationally. But the proportion of pregnant women found to be HIV-positive in antenatal clinic sites has fallen to 13% in the Rwandan capital, Kigali (from a high of almost 35% in 1993). However, given the

Figure 5



Source: National AIDS Programmes (partly compiled by the US Census Bureau)

massive population movements after the 1994 genocide, comparisons over time in Rwanda should be drawn with caution. In Addis Ababa, among 15–24-year-old pregnant women, HIV prevalence has dropped almost as sharply—down to about 11% in 2003 after having peaked at approximately 24% in 1995. This could mark a significant development, given that the country's epidemic is largely concentrated in its cities (with HIV prevalence at less than 2% in Ethiopia's rural pregnant women). In Ethiopia, almost 72,000 army recruits were tested for HIV during 1999–2000. In urban and rural recruits, HIV prevalence was 7.2% and 3.8% respectively. Elsewhere in this subregion, the epidemic retains a foothold. Kenya's 2002 national survey found that 10% of pregnant women were HIV-positive. In addition, trends in consistent surveillance sites have shown a modest decline in HIV prevalence among pregnant women in the past three years.

HIV prevalence in pregnant women has remained at low levels in Kinshasa (Democratic Republic of the Congo). More recent data from other urban and rural sites from the government-controlled parts of the Democratic Republic of the Congo suggest that HIV prevalence in 2003 may, in fact, be at 5% or less across large parts of the Republic, with the exception of Katanga province in the south-east, which shares a border with Zambia and where there is a prevalence of 6%, and possibly the eastern parts of the country where surveillance activities were delayed in 2003.

In **West Africa**, diverse epidemics are under way. Still paying off is Senegal's decision early in its epidemic to invest massively in HIV-prevention-and-awareness programmes in the 1980s (when HIV infection rates were still very low). Sustained programme efforts have stabilized HIV prevalence levels among pregnant women at around 1% since 1990, with these levels holding fast through 2002, but HIV prevalence among sex workers has increased slowly over the past decade. In Dakar, prevalence among sex workers rose from 5% in 1992 to 14% in 2002, while, in the city of Kaolack, it increased from 8% in 1992 to 23% in 2002. Population-based and other surveys suggest that adult HIV prevalence levels remain relatively low in other countries of the Sahel—around 2% in Mali, and 1% or lower in Gambia, Mauritania and Niger. Like Burkina Faso, Ghana shows stable trends. In the latter case, median HIV prevalence among pregnant women attending antenatal clinics has fluctuated between 2% and just over 3% since 1994 (and barely exceeding 4% in the capital, Accra, in 2002).

The situation is graver in Côte d'Ivoire, which is still saddled with the highest HIV prevalence in West Africa. More than 1 in 10 pregnant women have HIV infections in some of the country's regions, although, in 2002, HIV prevalence among pregnant women in Abidjan dropped to its lowest level (7%) for a decade. Nigeria's most recent surveillance data (2001) suggest an anomaly, with the country's major cities having a lower HIV prevalence (below 5%, in fact) than several smaller cities classified as rural—most noticeably in the south.

Despite widespread improvements across Africa in recent years, the coverage of HIV surveillance systems in a few countries remains too sparse to provide data that capture the epidemic's actual spread and trends. In most cases, war and conflict have been the main culprits—notably in Angola, the Democratic Republic of the Congo, Liberia and Somalia, where surveillance data remain scant.

It is now clear that across most of sub-Saharan Africa (including parts of Southern Africa), HIV prevalence among pregnant women visiting antenatal clinics has been roughly level for several years—albeit at very high levels in Southern Africa. This apparent 'levelling off' of HIV prevalence has been interpreted by some observers as an indication that the HIV/AIDS epidemic might have reached a turning point in sub-Saharan Africa. Unfortunately, available evidence does not offer grounds for such conclusions.

Improved estimates show that the number of people living with HIV in sub-Saharan Africa continues to rise

The latest UNAIDS and WHO estimates suggest that the number of people living with HIV/AIDS this year in sub-Saharan Africa is lower than the estimate published in 2002. Better data and understanding have enabled the UNAIDS Secretariat and WHO to arrive at a more accurate estimate in this region, correcting the over-estimate for 2002. However, the number of people living with HIV/AIDS in sub-Saharan Africa has continued to rise.

- Improved and expanded surveillance has shown that HIV prevalence in rural areas is lower than anticipated and that the differences between infection levels in rural and urban areas in some countries are greater than previously thought. Expanded HIV surveillance systems and national surveys have provided new data in remote rural areas in several countries, including Burundi, Ethiopia, Rwanda and Zambia, resulting in lower estimates of national prevalence in these countries. Such improvements in data collection and analysis will continue to enhance our understanding of the epidemic, a key objective of UNAIDS.
- In line with new census data, the estimated total populations of some countries have been adjusted downwards by the United Nations Population Division. In such countries, e.g. Mozambique and the Democratic Republic of the Congo, an adjustment indicating a smaller population also means that the total number of people living with HIV is smaller, even though the estimated percentage remains the same.

An example of a country where there was a major downward adjustment in the estimate of people living with HIV/AIDS is Zimbabwe. Figures released this year have put national adult HIV prevalence in Zimbabwe at 25% while it had been estimated at 34% at the end of 2001. Unfortunately, this does not correspond to a real decline of 9% in prevalence. The new figure represents a statistical correction of the 2001 estimate, which had relied on antenatal data that included a significant proportion of testing irregularities. In addition, new data have become available from a national survey. The corrected estimates, although lower, therefore show no actual decline in HIV prevalence in the country.

Applying such improved data and understanding of the epidemic to previous years shows a steady increase in recent years in the number of people living with HIV in sub-Saharan Africa, even though the prevalence is roughly stable. The number of AIDS deaths has also been growing, corresponding to increases in prevalence many years ago and poor access to life-prolonging antiretroviral medications.

Two factors are causing the apparent stabilization of prevalence rates observed in much of the region: AIDS mortality rates and HIV incidence. The combination of high (and, in some countries, rising) rates of AIDS mortality and continuing high HIV incidence has caused HIV prevalence to remain roughly level. In Zambia, for example, national HIV prevalence appears to have stayed relatively stable for the past 8–10 years. Since it is estimated that close to 80,000 people living in Zambia have been newly infected annually over that period, overall prevalence has remained steady because AIDS has killed as many people each year. HIV prevalence might therefore appear stable, but it hides the fact that the persistently high number of annual, new HIV infections is matching the equally high number of AIDS deaths.

We are not, therefore, witnessing a decline in this region's epidemic. There is no cause for complacency. In the absence of effective interventions, the epidemic will continue to wreak havoc in these countries.

The region's epidemics are varied and diverse, which means that the driving factors—along with the circumstances and interventions that might inhibit HIV spread—must be better understood. This seems particularly true for Southern Africa, where structural factors—including socioeconomic and sociocultural inequalities—appear to be bedevilling effective responses.

National reports tracking progress towards implementation of targets established in the Declaration of Commitment on HIV/AIDS (agreed to at the United Nations General Assembly Special Session in June 2001) show that a large number of countries have no national orphan policies in place, voluntary counselling and testing coverage is threadbare, and prevention of mother-to-child transmission is virtually non-existent in many of the hardest-hit countries. Over 70% of countries reporting from Africa on efforts to reduce HIV transmission to infants and young children have virtually no programmes to administer prophylactic antiretroviral therapy to women during childbirth and to newborns. Almost half the African countries reporting have not adopted legislation to prevent discrimination against people living with HIV/AIDS, and only one in four countries report that at least 50% of patients with other sexually transmitted infections (co-factors for HIV infection) are being diagnosed, counselled and treated. Although treatment coverage remains low (with only an estimated 50,000 people having access to antiretroviral drugs in 2002), some countries, such as Botswana, Cameroon, Eritrea, Nigeria and Uganda have made serious efforts to increase access to antiretroviral drugs through both the public and private sectors.

But the past two-to-three years have also seen an upsurge of political support, stronger policy formulation, boosted funding, and moves towards cushioning societies against the impact of the epidemic—a momentum that has to be maintained if the epidemic is to be reversed.

EASTERN EUROPE AND CENTRAL ASIA

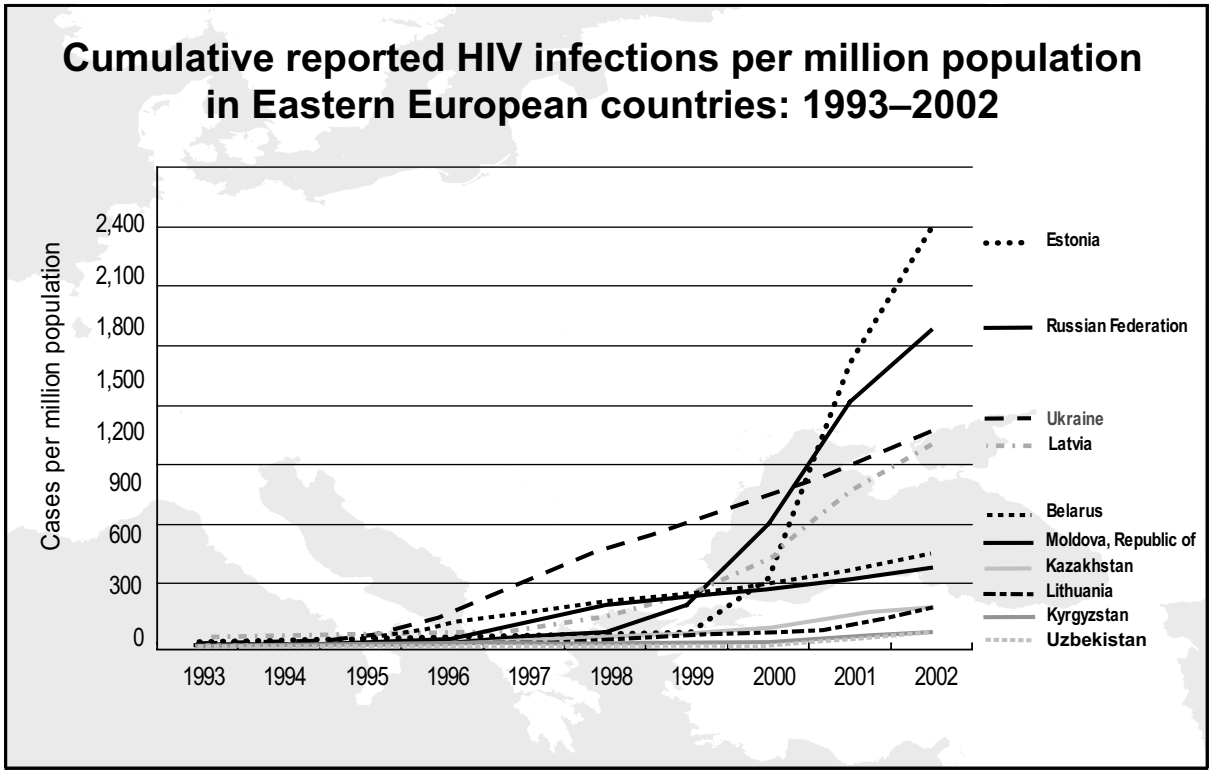
HIV prevalence continues to rise in the Baltic States, Russian Federation and Ukraine. In Central Asia, the epidemic is expanding rapidly.

The AIDS epidemic in Eastern Europe and Central Asia shows no signs of abating. Some 230,000 people were infected with HIV in 2003, bringing the total number of people living with the virus to 1.5 million. AIDS claimed an estimated 30,000 lives in the past year.

Worst-affected are the Russian Federation, Ukraine, and the Baltic States (Estonia, Latvia and Lithuania), but HIV continues to spread in Belarus, Moldova and Kazakhstan, while more recent epidemics are now evident in Kyrgyzstan and Uzbekistan (see Figure 6). It is now estimated that around 1 million people aged 15–49 are living with HIV in the Russian Federation (although various estimates from that country put the figure at between 600,000 and 1.5 million).

Driving these epidemics is widespread risky behaviour—injecting drug use and unsafe sex—among young people. Extraordinarily large numbers of young people regularly or intermittently engage in injecting drug use, and this is reflected in increasing HIV prevalence among injecting drug users throughout the former Soviet Union. Condom use is generally low among young people, including those at high-

Figure 6



Source: National AIDS Programmes (2002). HIV/AIDS surveillance in Europe. End-of-year report. Data compiled by the European Centre for the Epidemiological Monitoring of AIDS.

est risk of HIV transmission in Eastern Europe and Central Asia. According to one survey in the Russian Federation, fewer than half of teenagers aged 16–20 used condoms when having sex with casual partners. The percentage of sex workers reporting consistent condom use has seldom topped 50%, while, among injecting drug users, fewer than 20% on average report consistent condom use.

HIV-positive persons are under 30 years of age. In the Russian Federation, 80% of HIV cases due to injecting drug use are in young persons under 30. On the whole, more than 80% of people who are HIV-positive in this region have not yet turned 30, in contrast to the situation in Western Europe and the United States of America, where only 30% of the reported cases are among people under 29 years of age.

Driving the epidemic are persistently high levels of risky behaviour—specifically injecting drug use and, to a lesser extent, unsafe sex—among young people.

A relatively new phenomenon in these countries, injecting drug use has taken hold amid jolting social change, widening inequalities and the consolidation of transnational drug-trafficking networks in the region. By some estimates, there could be as many as 3 million injecting drug users in the Russian Federation alone, more than 600,000 in Ukraine and up to 200,000 in Kazakhstan. (In Estonia and Latvia, it has been estimated that up to 1% of the adult population injects drugs, while, in Kyrgyzstan, that figure could approach 2%). Most of these drug users are male and many are very young—in St Petersburg, studies found that 30% of them were under 19 years of age, while, in Ukraine, 20% were still in their teens. A survey of Moscow youth aged 15–18 found that 12% of the males had injected drugs. Overall, up to 25% of injecting drug users are estimated to be under 20 years of age across Eastern Europe and Central Asia. And the use of unclean equipment, often through sharing of drug injecting equipment, remains the norm. In Moldova, for example, an estimated 80% of users share injecting equipment (often to affirm trust towards other users), while one Moscow sample found that 75% of users had shared injecting equipment in the past month.

Young people predominate in this region among reported HIV cases. In Ukraine, 25% of those diagnosed with HIV are younger than 20, in Belarus 60% of them are aged 15–24, while in Kazakhstan and Kyrgyzstan upwards of 70% of HIV prevalence continues to rise in the Russian Federation, which remains saddled with the worst epidemic in this region. By the end of 2002, a cumulative total of 229,000 people had been diagnosed with HIV. Almost a quarter (50,400) of that total was added in 2002 alone, indicating that the epidemic is growing at a fearsome rate. Moreover, these reported cases almost certainly grossly underestimate the number of people living with HIV.

Most of these infections are occurring through the use of contaminated equipment when injecting drugs, with young men bearing the epidemic's brunt. But another striking pattern is now evident. Women account for an increasing share of newly diagnosed HIV infections—33% in 2002, compared to 24% a year earlier. One consequence is a sharp rise in mother-to-child transmission of the virus. These patterns are most evident in regions where the epidemic took hold several years ago, such as Kaliningrad (in the west of the country) and Krasnodar (in the south-west). They indicate the onset of a new stage in the epidemic in parts of the country, where the sexual spread of the virus is becoming a more prominent feature. Because most injecting drug users are young and sexually active, a significant share of new infections is occurring through sexual transmission (often when injecting drug users or their HIV-infected partners engage in unsafe sex).

Although advancing steadily, the Russian Federation's epidemic is still in its early stages.

HIV has been detected in 88 of the country's 89 administrative territories, but it is spreading unevenly across this vast country. In a few places, such as the Nizhny Novgorod region, interventions appear to have stabilized localized epidemics. But, in at least 9 territories, serious epidemics are under way, and the virus has gained a firm foothold in a further 11 territories.

These patterns highlight the need for a more vigorous and comprehensive response that diminishes the vulnerability of young people, and enables them to reduce drug injecting and risky sexual behaviour. That means greater access to information, as well as to prevention tools and services. Harm reduction forms a cornerstone of such a comprehensive response, and should be broadened quickly to address the needs of young drug injectors who face immediate and high risks of HIV infection. Special attention should be paid also to their predominantly female sexual partners, to men who have sex with men, and to the young women and men who engage in sex work. The prevention of mother-to-child transmission is a new and urgent priority. But the growing treatment and care needs of people living with HIV can no longer be overlooked.

Much the same holds true for Ukraine (where a cumulative total of more than 52,000 people had been officially diagnosed with HIV by the end of 2002), Belarus (with a total of 4,700 people diagnosed with HIV) and Moldova (reporting almost 1,700 HIV cases)—all countries with comparatively older epidemics. Although the majority of HIV infections still occur among young people who inject drugs (and their sexual partners), there are indications that the epidemics are starting to spread beyond them.

Although overall numbers of infections remain low, HIV spread continues at an alarming pace in the Baltic States. At 2,300 in 2002, the total number of HIV diagnoses in Latvia has risen five-fold since 1999. Just four years ago, Estonia reported 12 new HIV cases; in 2002, 899 people were newly diagnosed with the virus. Lithuania is on a similar path. There, the 72 new HIV cases detected in 2001 increased more than five-fold in 2002. Lithuania appears to be facing two distinct epidemics—one affecting mainly injecting drug users in regions adjacent to Kaliningrad (Russia), and the other spreading among men who have sex with men in Vilnius.

The most recent HIV outbreaks in the region are to be found in Central Asia, where reported HIV infections have grown exponentially from 88 in 1995 to 5,458 in 2002. This is mainly due to the sharp rise in infections recorded in Kazakhstan, Kyrgyzstan and Uzbekistan. HIV has now spread to all regions of Kazakhstan, while the majority of cases reported in Kyrgyzstan are concentrated in the Osh region, which serves as a drug transit route for neighbouring countries. Given that the five Central Asian republics straddle major drug trafficking routes into the Russia Federation and Europe, it is no surprise that the majority of infections currently are related to injecting drug use. Indeed, in some parts, heroin is now believed to be cheaper than alcohol. As elsewhere in the region, young people are the worst-affected, with those on the margins of the economy particularly vulnerable. In Kazakhstan, for example, three-quarters of people diagnosed with HIV were unemployed.

There is a concern that hidden epidemics are possibly occurring among men who have sex with men and among other groups at higher risk of infection.

These epidemics are very recent and can be halted if prevention efforts are targeted at those who are currently most affected—injecting drug users and sex workers—and are supported by prevention work among young people generally. In some instances, even more elementary prevention steps are required—such as screening blood donations for HIV. Tajikistan, for example, reportedly did not test 40% of those who donated blood in 2002.

Further west, new reported HIV infections have remained stable (at roughly 500–600 annually) in Poland since the mid-1990s, and a similar pattern has been evident in the Czech Republic, Hungary

and Slovenia since the late 1990s. However, in parts of south-eastern Europe (notably countries emerging from conflict and difficult transitions) drug injecting and risky sexual behaviour appear to be on the increase—raising the prospect of possible HIV outbreaks unless preventive steps are swiftly introduced.

Current data are based only on people who are tested for HIV, and not all potentially affected groups of people are being tested. Therefore, the data reflect the situation among those people and groups (chiefly injecting drug users) who come into contact with HIV-testing programmes. There is a concern that hidden epidemics might be occurring among men who have sex with men, who are severely stigmatized across the region. Significant networks of men who have sex with men have been documented in Central Asia, Belarus and Ukraine, and Lithuania's vigorous epidemic is at least partly lodged among men who have sex with men, while possibly incipient epidemics in Croatia and Slovenia appear to be following a similar pattern. Some early surveys of sexual behaviour in the Russian Federation and Ukraine showed high levels of unprotected sex in the first half of the 1990s, while a study in the Russian Federation in 2000 suggested that high-risk behaviours have persisted in communities of men who have sex with men.

An increasing number of countries in the region are beginning to come to grips with HIV/AIDS. The epidemic now features at the Commonwealth of Independent States' summits of Heads of States and Heads of Governments. As well, people living with HIV/AIDS and other civil society groupings are gaining a voice and forming partnerships with governments in Belarus, Kazakhstan, Romania and Ukraine. In the Russian Federation, a new Advisory Council on HIV/AIDS has brought together, for the first time, government sectors and organizations of people living with HIV/AIDS. Buttressing such recent advances is stronger HIV/AIDS-related international assistance, which has increased six-fold since the end of 2001 across the region (thanks, in part, to funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank and major bilateral donors). Also on the agenda now is the provision of treatment and care for the 1.5 million people living with HIV/AIDS in the entire region. These steps forward are flanked, though, by an increased need to provide technical support for resource management, and monitoring and evaluation.

ASIA AND THE PACIFIC

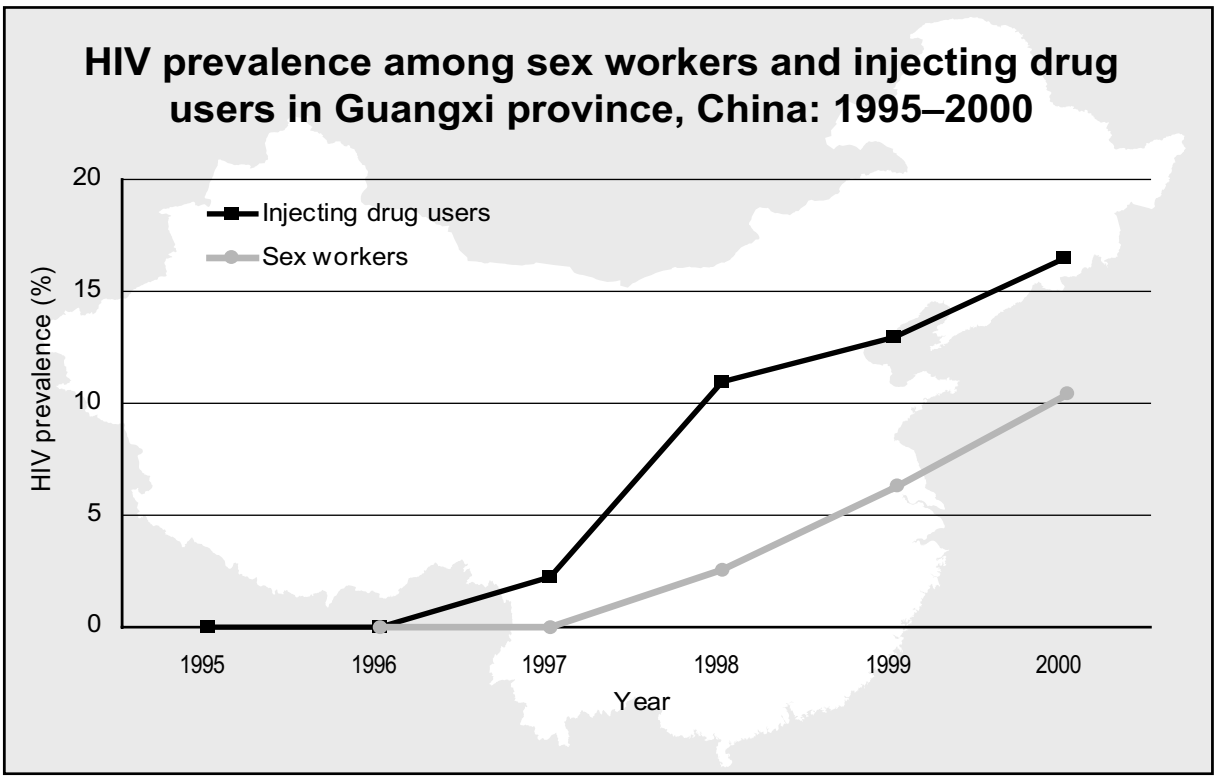
The epidemic is spreading into areas and countries where, until recently, there was little or no HIV present—including China, Indonesia and Viet Nam (home to over 1.5 billion people).

Over 1 million people in Asia and the Pacific acquired HIV in 2003, bringing to an estimated 7.4 million the number of people now living with the virus. A further 500,000 people are estimated to have died of AIDS in 2003.

National adult HIV prevalence is still under 1% in the majority of this region's countries. That figure, though, can be deceptive. Several countries in the region are so large and populous that national aggregations can obscure serious epidemics in some provinces and states. Although national adult HIV prevalence in India, for example, is below 1%, five states have an estimated prevalence of over 1% among adults. Moreover, there are increasing warning signals that serious HIV outbreaks threaten in several countries. Injecting drug use and sex work are so pervasive in some areas that even countries with currently low infection levels could see epidemics surge suddenly.

In parts of China, for example, high rates of HIV prevalence have been found among injecting drug users—35–80% in Xinjiang and 20% in Guangdong—while a severe HIV epidemic has affected communities where unsafe blood-collection practices occurred in the 1990s. Available evidence suggests that injecting drug use is increasing (with a high proportion of injectors using contaminated needles and syringes), and that condom use remains low among sex workers and other vulnerable groups, such as men who have sex with men. In sum, China's low national HIV prevalence obscures the fact that serious, concentrated epidemics

Figure 7



Source: Sentinel surveillance reports, National Center for HIV/AIDS Surveillance

have been under way for many years in certain regions (such as Yunnan, Xinjiang, Guangxi, Sichuan, Henan and Guangdong) and are poised to take off in several others. The epidemic has spread to 31 provinces (autonomous regions and municipalities) and the number of reported HIV/AIDS cases has increased significantly in recent years.

Unusual for this region, injecting drug use has featured minimally in Cambodia's epidemic—unlike many other countries in the region, including Thailand, where efforts to limit HIV transmission through injecting drug use appear to be lagging, however. Unless rectified, this could lead to a resurgence of the country's epidemic. Injecting drug use could become the main mode of transmission, with the virus then being passed on to other users, their sexual partners and children.

Most of these new emerging epidemics are driven by injecting drug use, with additional HIV spread occurring through commercial sex.

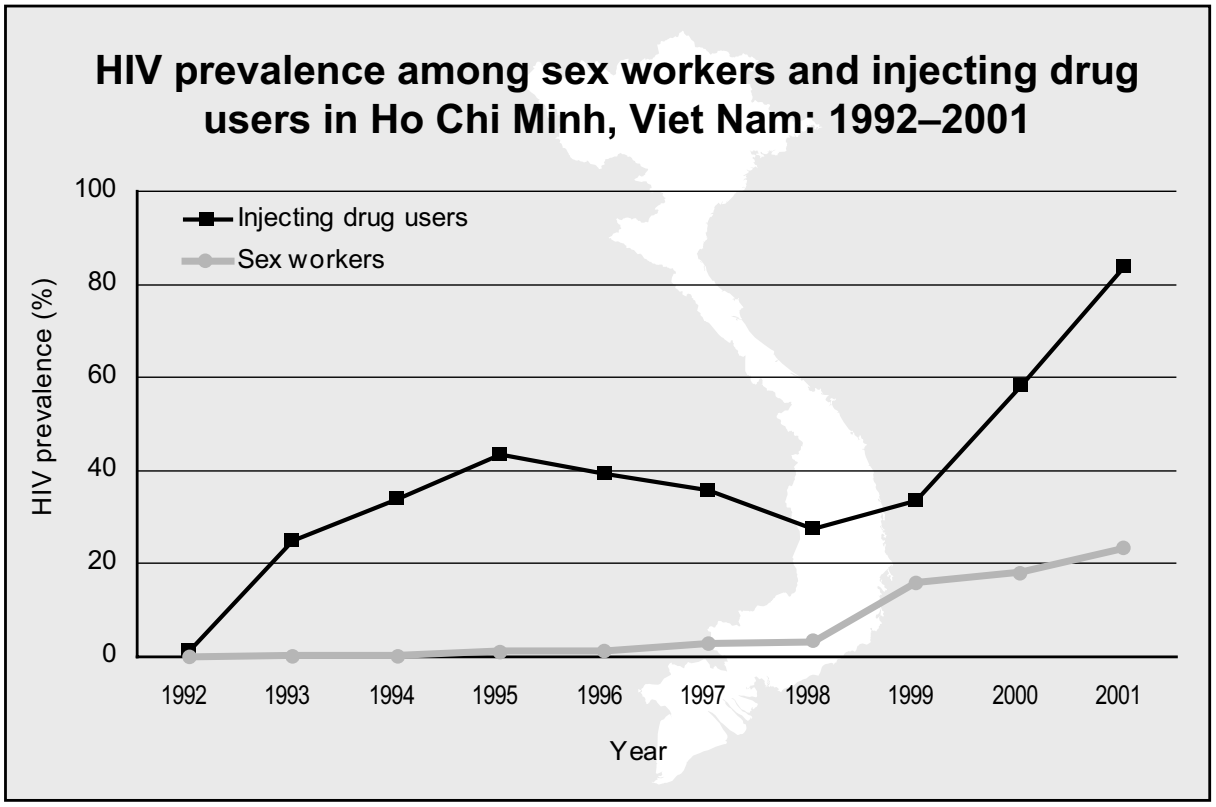
Three Asian countries have already had to contend with serious nationwide epidemics: Cambodia, Myanmar and Thailand. While it remains to be seen whether Myanmar's nascent prevention efforts will limit HIV prevalence to the 1–2% reported among 15–24-year-olds in urban areas, national adult HIV prevalence in Cambodia has remained stable at about 3% since 1997, thanks to resolute efforts to hold the epidemic in check. Seroprevalence appears to have dropped significantly among brothel-based sex workers—from 43% in 1998 to 29% in 2002—and among urban police, largely due to the vigorous condom-promotion programme supported by the government and nongovernmental organizations. Cambodia's Ministry of Health recently estimated that the country would have seen three times as many HIV infections had it not mounted this response.

Thailand's feted 100% condom use programme brought its rampant epidemic to heel in the 1990s, with national HIV prevalence hovering around 2% in 2002 and prevalence among 21-year-old military conscripts dropping to under 1% in 2002 (from as high as 4% in the mid-1990s). In both Cambodia and Thailand, two breakthroughs spearheaded their achievements: condom use in commercial sex increased, and men sought the services of sex workers less frequently. Analysis suggests, however, that HIV transmission between spouses has become a more prominent cause of new infections—a reminder that it is inadequate to only target vulnerable groups.

Although spared, to date, Viet Nam faces the possibility of a serious epidemic (see Figure 8). The most recent estimate pegged national HIV prevalence at well under 1%, but outbreaks among injecting drug users are already occurring. According to official estimates, 65% of Viet Nam's HIV infections are occurring among drug users, due to the use of contaminated injecting equipment. Sentinel surveillance in 2002 found that more than 20% of injecting drug users in most provinces were HIV-positive. Already, there are signs that the epidemic is spreading in other vulnerable populations. HIV prevalence rates of 11% and 24% have been detected among sex workers in Can Tho and Ho Chi Minh City, respectively. Although many sex workers are believed to also inject drugs, there is growing evidence that this surge in infections is now also occurring through sexual intercourse. These developments are not restricted to the south; HIV prevalence among sex workers reached 15% in Hanoi and 8% in Hai Phong in 2002.

Viet Nam faces an urgent, double challenge. By introducing HIV-prevention programmes, it can limit the spread of HIV through injecting drug use—thus protecting not only drug users but also their sexual partners and, in the case of female users, their children. It also has to act swiftly to forestall potentially explosive heterosexual transmission through sex work into the wider population. Research suggests that a significant

Figure 8



Source: Sentinel surveillance reports, National AIDS Bureau, Ministry of Public Health, 1992-2001

proportion of men buy sex in urban areas. As Vietnamese society continues to liberalize, and migration from rural to urban areas increases, this proportion could well rise.

Already stricken with a more serious epidemic, Myanmar has little time to lose. Injecting drug use and commercial sex are responsible for most HIV infections, and there are reports that migrant workers (especially gem miners and loggers) are becoming a major conduit for the virus's spread into the wider population. UNAIDS has helped marshal a special fund to tackle the epidemic over the next three years, but significant improvements are also needed in the country's battered public-health system. To date, only piecemeal activities have been undertaken; a coordinated national response is now an absolute priority if transmission through commercial sex and injecting drug use is to be curbed.

The warning signs are not diminishing in Indonesia, either. Condom social marketing and AIDS-awareness campaigns have been boosted since the late 1990s, but condom use remains low, even in commercial sex. It is estimated that fewer than 10% of the 7–10 million Indonesian men who frequent sex workers use condoms consistently. In 2002, roughly the same low percentage of sex workers in Jakarta said they always used condoms during paid sex. Not surprisingly, HIV prevalence among sex workers is following a steady upward arc in largely rural provinces, such as Kalimantan and Papua, as well as in industrial development areas, such as Riau.

It is injecting drug use, however, that is the major driver of Indonesia's epidemic. Over 90% of injecting drug users have been found to use unclean injecting equipment in three major cities and, in one of these, as many as 70% report having had unprotected sex with sex workers. Injecting drug users are regularly arrested and spend time in jail—an environment where risky behaviours are common. The potential for rapid HIV transmission to other vulnerable populations and the wider population is substantial.

The region of Papua, Indonesia (Irian Jaya) shares an island with the country of Papua New Guinea. Both the Indonesian side and Papua New Guinea have a high prevalence of HIV among

sex workers. For Indonesia, it appears to be the highest rate among sex workers in the country: in the town of Sorong, HIV prevalence among sex workers reached 17% in 2002. Across the border in Papua New Guinea, only 15% of female sex workers report consistent condom use, and HIV prevalence among sex workers has reached 17%. Indeed, Papua New Guinea now has the highest reported rate of HIV infection in the Pacific, with an estimated HIV prevalence of almost 1% among pregnant women attending antenatal clinics in Port Moresby. Papua New Guinea has had a national HIV/AIDS policy since 1989, but these recent developments point to a pressing need to strengthen prevention efforts.

The HIV/AIDS picture in **South Asia** remains dominated by the epidemic in India, where between 3.82 and 4.58 million people were infected nationally by the end of 2002. In the past year, at least 300,000 people acquired HIV, and serious epidemics are now under way in several states—including Maharashtra and Tamil Nadu (where HIV prevalence of over 50% has been found in sex workers in some cities), and in Manipur (with HIV prevalence among injecting drug users ranging between 60% and 75%). According to India's National AIDS Control Organization (NACO), HIV/AIDS is not confined to vulnerable groups or to urban areas, but is gradually spreading into rural areas and the wider population. In states such as Andhra Pradesh, Karnataka, Maharashtra, Manipur and Nagaland, HIV prevalence rates among pregnant women have crossed the 1% threshold, while, in Gujarat and Goa, HIV prevalence among populations with high-risk behaviour is above 5% (though below 1% among pregnant women). Worryingly, not enough is known about HIV spread in the vast populous interior of Uttar Pradesh and other northern Indian states, where current HIV surveillance is providing an incomplete picture of the epidemic. Elsewhere, Maharashtra and Tamil Nadu offer localized examples of where prevention efforts appear to be making some headway, but there is not yet persuasive evidence that the epidemic is being curbed in individual states, let alone in the country as a whole.

In neighbouring Bangladesh and Nepal, national HIV prevalence has remained under 1%, but risky behaviour in parts of the population is so extensive that it could be just a matter of time before wider epidemics erupt. In the Nepalese capital, Kathmandu, HIV epidemics are centred around injecting drug users and sex workers, most of them young. Among the former, HIV prevalence of up to 68% has been detected in recent years, while, among the latter, prevalence is around 17%.

Young people are at the hub of Nepal's AIDS challenge. While studies suggest that their HIV/AIDS knowledge is passable, they remain prone to HIV exposure. Sexual activity starts early (almost one in five Nepalese teenagers have had sex by the time they turn 15) and condom use is very low. Recent small-scale studies have revealed that sex between men is relatively common, especially in Kathmandu. Unsafe sex is the norm, between male partners and between these men and their female partners.

In older epidemics, such as those in Cambodia and Thailand, there is now significant HIV spread from people with high-risk behaviour to their sexual partners

Bangladesh poses as big a challenge, despite the fact that HIV has a tentative presence currently (even among vulnerable populations). Almost half the population is under 15 years of age, and risky behaviours—including high rates of unsafe injecting drug use, a thriving sex trade and unsafe blood-transfusion practices—are widespread. And the people involved in these activities overlap; many sex workers also inject drugs, injecting drug users often frequent sex workers; and some studies indicate that users often sell blood. Condom use is almost non-existent. In central Bangladesh, more than 90% of sex workers do not use condoms; elsewhere in the country, virtually all surveyed sex workers have reported at least occasionally having sex without condoms. Meanwhile, it is estimated that more than 90% of injecting drug users are exposed to

contaminated injecting equipment. In addition, knowledge of AIDS is slight: only about 65% of young people, and fewer than 20% of married women and 33% of married men have heard of AIDS. The upshot is a very high potential for rapid HIV transmission. In the most recent surveillance round, up to 4% of injecting drug users in central Bangladesh were found to be HIV-positive—up from around 1% in surveillance rounds in previous years.

Both Bangladesh and Nepal have golden opportunities to prevent their epidemics from spinning out of control. While the former has put in place an integrated national AIDS strategy that also draws on the efforts of a countrywide network of nongovernmental organizations, some basic steps still need to be taken, including more comprehensive blood screening in hospitals.

The few HIV surveillance studies available for Pakistan suggest that HIV prevalence among injecting drug users and sex workers has been low (ranging from 0% to 11.5%), with a median prevalence of 0%. However, a growing number of the estimated 3 million heroin users in Pakistan have begun injecting since the late 1990s. A recent study among drug users in Quetta found that 55% of injecting drug users had used unclean injection equipment, and roughly the same proportion had had sex with a sex worker. Only 4% had ever used a condom, and only 16% of drug users had heard of AIDS.

Latin America and the Caribbean

National HIV prevalence has reached or exceeded 1% in 12 countries, all of them in the Caribbean Basin.

More than 2 million people are now living with HIV in Latin America and the Caribbean, including the estimated 200,000 that contracted HIV in the past year. At least 100,000 people died of AIDS in the same period—the highest regional death toll after sub-Saharan Africa and Asia.

HIV/AIDS is well entrenched in this region, with national HIV prevalence at least 1% in 12 countries, all of them in the Caribbean Basin. The most recent national estimates showed HIV prevalence among pregnant women reaching or exceeding 2% in six of them: the Bahamas, Belize, the Dominican Republic, Guyana, Haiti, and Trinidad and Tobago. In contrast, most of the other countries of the region have highly concentrated epidemics, notably in South America where Brazil (with by far the largest overall population in the entire region) is home to the vast majority of people living with HIV in the region.

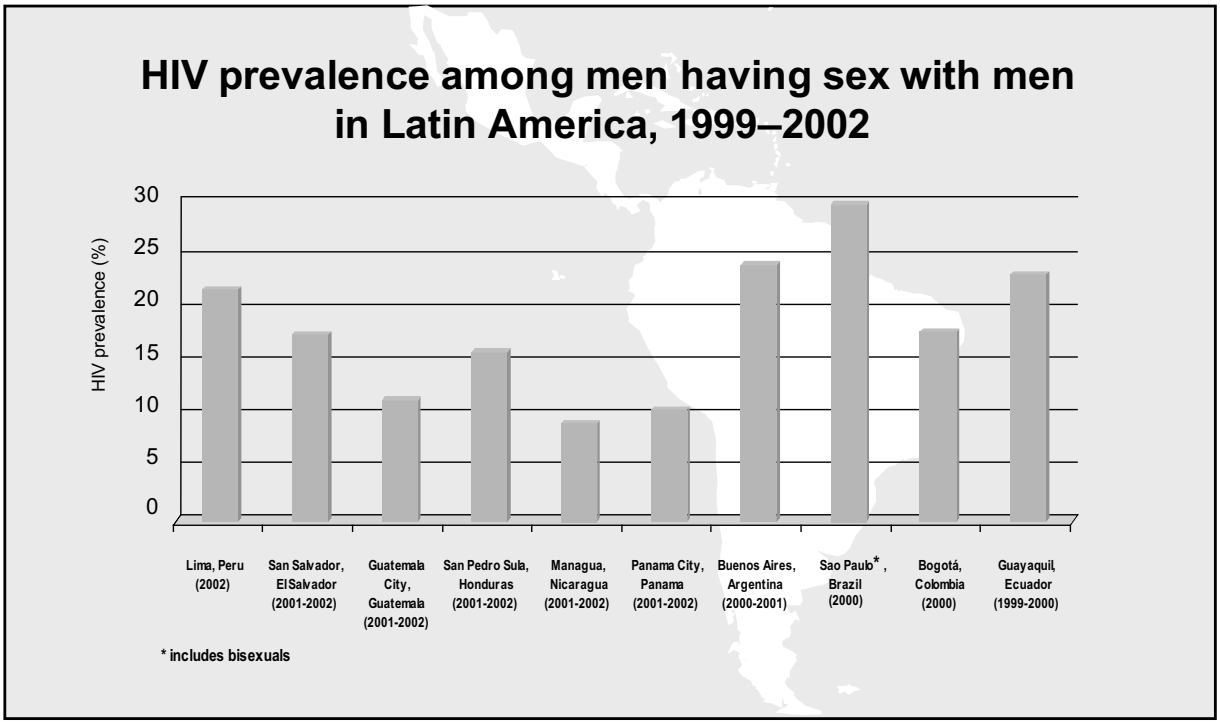
Distinctive epidemiological patterns are being observed in the region. All the main modes of transmission coexist in most countries amid significant levels of risky behaviour—such as early sexual debut, unprotected sex with multiple partners and the use of unclean drug-injecting equipment. In the bulk of the South American countries, HIV is being transmitted chiefly through injecting drug use and sex between men (with subsequent heterosexual transmission to other sexual partners), while in Central America most HIV infections appear to be occurring through sexual transmission (both heterosexual and between men). In the Caribbean, heterosexual transmission predominates (and, in many cases, is associated with commercial sex), although Haiti's persistently serious epidemic is now well established in the wider population. One notable exception is Puerto Rico, where injecting drug use appears to be the main driver of the epidemic.

Two of the region's most serious epidemics are on Hispaniola Island—in Haiti and the Dominican Republic. Stricken with the lowest health and other development indicators in the entire region, Haitians' woes are being aggravated dramatically by the AIDS epidemic, which is claiming an estimated 30,000 lives a year and has left some 200,000 children orphaned by AIDS. Haiti's national HIV prevalence levels have remained at 5–6% since the late 1980s. The factors contributing to this apparent levelling off of national HIV prevalence are unclear, although it must be noted that sentinel surveillance has shown that HIV prevalence levels vary dramatically (from as high as 13% in the north-west to 2–3% in the south along the border with the Dominican Republic). With about 60% of the population under 24 years of age, much scope exists for renewed growth in Haiti's mainly heterosexually-transmitted epidemic. Condom use is very low among young people, despite evidence that HIV/AIDS knowledge is comparatively strong (though more so among men than women).

Sex between men is an important, but neglected, feature of Latin America's epidemic.

Further east, in the Dominican Republic, prevention efforts in recent years appear to have stabilized HIV prevalence among 15–24-year-olds in the

Figure 9



Sources: (1) Lima data: HIV Infection and AIDS in the Americas: lessons and challenges for the future. Provisional Report MAP/EpiNet, 2003. (2) San Salvador, Guatemala City, San Pedro Sula, Managua and Panama City data: Multicenter study of HIV/STD prevalences and socio-behavioral patterns, PASCA/USAID. (3) Buenos Aires data: Avila M, Vignoles M, Maulen S et al., HIV Seroincidence in a Population of Men Having Sex with Men from Buenos Aires, Argentina. (4) Sao Paulo data: Grandi J. Oliveria L, Orival et al., Busca Ativa de DST em Centro de Testagem e Aconselhamento – CTA. (5) Bogotá data: MS/INS/LCLCS/NMRCD 2000 study. (6) Guayaquil data: Guevara J, Suarez P, Albuja C et al. Seroprevalencia de infeccion por VIH e Grupos de Riesgo en Ecuador. Revista medica del Vozandes. Vol 14, No.1:7-10, 2002.

capital of Santo Domingo. Having climbed to 3% in 1995, HIV prevalence among pregnant women in that age group in the capital has fallen to less than 1%. Increased condom use and fewer sexual partners appear to have been factors. However, the situation appears different in some other cities, where HIV prevalence as high as 12% has been measured among female sex workers, pointing to the need to expand and sustain prevention efforts. In addition, little is known about HIV patterns among men who have sex with men—a potentially important facet of the country's epidemic.

In Central America, national HIV prevalence is around 1% in Guatemala, Honduras and Panama. New data from an international study on HIV prevalence show that HIV prevalence in sex workers varies significantly—from less than 1% in Nicaragua, 2% in Panama, 4% in El Salvador, and 5% in Guatemala, to over 10% in Honduras. HIV prevalence among men who have sex with men was found to be uniformly high in those countries—ranging from 9% in Nicaragua to 18% in El Salvador (see Figure 9). These findings underscore the need to bring more resources and effort to bear on the epidemics among sex workers and men who have sex with men.

In Colombia and Peru, HIV spread is most marked among men who have sex with men. HIV prevalence of 18% was recently reported in this population group in Bogotá, while another survey in the same city found very low consistent condom use in this group. Highlighted is the considerable potential for HIV transmission from men who have sex with men to their female partners and children. Studies from Peru are bearing out this concern. HIV prevalence of 22% has been measured in the city of Lima among men who have sex with men (up from 18% in 1998), where 1 in 10 men surveyed said they had sex with other men (and, of these, almost 9 in 10 said they also had sex with women). Consistent condom use appeared to be a rare exception, especially during heterosexual intercourse.

Although Brazil's epidemic has spread from the major urban centres to smaller municipalities across most of the country, median HIV preva-

lence among pregnant women attending antenatal clinics has remained below 1%, with little variation over the past five years. This is partly a testament to the prevention programmes mounted since the 1990s, including efforts to extend coverage of harm reduction and other prevention programmes among vulnerable groups (and, in addition, an active and successful programme to treat persons with HIV). However, Brazil cannot rest on its laurels. HIV prevalence rates of 3–6% have been measured in Rio Grande do Sul among women who enjoy only rare access to the public health system. This has raised fears that serious epidemics might be under way but undetected in some disenfranchised communities. The country's Ministry of Health has now launched an initiative to recruit, test and (where necessary) treat pregnant women who do not regularly access prenatal care clinics.

The epidemics will not be vanquished until countries come to terms with the hidden but widespread realities of injecting drug use and male-to-male sex. Stigmatizing and denying such behaviour can only fuel the silent epidemics that are under way in this region. Absent currently is sufficient information about vulnerable groups that can inform better HIV/AIDS programming. Better epidemiological and behavioural surveillance data, coupled with stronger social and political mobilization around AIDS, can boost responses to match the realities of the epidemic.

The response in this region has intensified over the past year, especially in the most affected countries. The proportion of patients who need and receive antiretroviral treatment in the region varies enormously, with some countries having coverage of less than 25% while others have more than 75%. Overall it has been estimated that antiretroviral treatment is provided to about half of the patients in the region who need it. But several subregional initiatives are raising the prospect of increased access in some countries, including the Bahamas, Barbados and Honduras.

AIDS responses have been strengthened recently in many countries, but there is concern that the economic and social instability experienced in parts of the region could undermine those programmes.

Several countries have boosted their national HIV/AIDS budgets, while Central American and Caribbean countries have seen an almost four-fold increase in external resources for AIDS, compared to three years ago. Partnerships are also being consolidated, including those mustered under the mantle of the Horizontal Technical Cooperation Group (in Latin America) and the Pan-Caribbean Partnership.

Stigma and discrimination remain a major obstacle, however. A recent analysis of national expenditure on AIDS (performed by the SIDALAC project, with UNAIDS support), for example, has shown that investment in prevention and care activities for the most vulnerable populations (such as men who have sex with men, and sex workers) still does not match their prominence in the epidemic. Discrimination appears to be the chief cause of this pattern.

The Middle East and North Africa

HIV prevalence in this region is still very low, with the exception of southern Sudan and recent outbreaks among injecting drug users in some countries.

The notion that this region has sidestepped the global HIV epidemic is not borne out by the latest estimates, which indicate that 55,000 people acquired HIV infection in the past year, bringing to 600,000 the total number of people living with HIV/AIDS in the Middle East and North Africa. AIDS killed a further 45,000 people in 2003. There is the potential for a considerable rise in the number of HIV infections in this region.

By far the most seriously affected country at present is the Sudan—specifically the south, where a mainly heterosexual epidemic is well under way. Available data indicate a national adult HIV prevalence of more than 2%, but conflict is hampering both surveillance of the epidemic and the mounting of a potentially effective response. The last round of surveillance data showed that HIV prevalence among pregnant women was 6–8 times higher in the south of Sudan, compared to Khartoum.

In most other countries, HIV spread in this region appears to be nascent, although scant surveillance data in several countries could mean that serious outbreaks in certain populations (including men who have sex with men and injecting drug users) may be being missed.

There also appears to be significant movement of HIV-infected persons between some countries. More than half of those officially reported to have HIV in Tunisia, for example, are believed to have crossed the border from Libya to seek antiretroviral treatment and/or to undergo drug rehabilitation. (Tunisia has been providing free and universal antiretroviral treatment since the turn of the century.)

The epidemic threatens to expand along diverse routes in the region, including through blood transfusions and blood collection. Universal precautions and blood screening have greatly reduced the risks of transmission in health-care settings in most countries, but HIV transmission through blood and blood products remains a potentially significant danger in some.

Also of concern is the rise in HIV infections among injecting drug users, particularly in Bahrain, Libya and Iran, while HIV infections linked to this mode of transmission have been reported in Algeria, Egypt, Kuwait, Morocco, Oman and Tunisia. Most of the HIV infections occurring in Iran appear to be associated with injecting drug use and serious levels of HIV infection have been reported in the country's prison system. HIV prevalence among injecting drug users in 10 Iranian prisons has reached as high as 63%. It has been estimated that Iran could be home to as many as 200,000 injecting drug users, most of them men. An earlier study in Iran revealed that about half of injecting drug users were married, and a third had reported extra-marital sex, pointing to the potential for secondary heterosexual transmission. To date, the HIV epidemic among adults in Libya has been driven by injecting drug use, with 90% of all known HIV infections occurring among injecting drug users. In the one drug-dependence treatment facility in Libya, 49% of all new patients have been found to be HIV-positive in the past three years.

Several other vulnerable groups face increasing risk of HIV infection in the region, notably sex workers and men who have sex with men. A recent report from Yemen, for example, suggests that 7% of sex workers are HIV-positive. Across the region, more in-depth studies are needed to examine sex work realities, especially street-based situations, and their potential contribution to HIV spread, first among sex workers and their clients, and subsequently to clients' wives and children.

Too little is known about the transmission of HIV between men who have sex with men in this region, and the shortfall of information is largely due to the stigma attached to sex between men. Egypt is one of the few countries to have monitored the transmission of HIV in groups of men who have sex with men, among whom HIV prevalence appears to have been around 1% at the turn of the century. The proportion of AIDS cases attributed to men who have sex with men was reported to be 21% in 2000. A review of HIV epidemiology in Morocco similarly found that sexual transmission between men accounted for over 7% of cumulative cases of HIV infection in the previous decade.

Up-to-date surveillance and behavioural data have been scant, though steps to remedy the situation are now being taken in much of the region. Effective prevention is needed speedily across the regions, designed to target both vulnerable groups and groups that could be drawn into the next phase of HIV spread, such as migrant workers, refugees and displaced persons, transport route workers, tourists, and young people generally. At present, however, even basic activities such as condom promotion are largely absent in the region. Yet there are encouraging exceptions to what appears to be a general pattern of official denial in the region. Algeria, Iran, Lebanon and Morocco, for example, are developing more substantial prevention programmes, while some countries (notably Iran and Libya) appear more willing to acknowledge and tackle epidemics associated with injecting drug use.

Surveillance systems are being improved in some countries and examples of positive prevention efforts are on the increase. But denial and stigma create an ideal context for the spread of HIV.

The AIDS epidemic history presents ample proof that it is among these groups that HIV often gains a foothold before spreading more generally. Part of the challenge facing countries of this region is to defuse the stigma and blame that are so often attached to vulnerable groups, and to deepen the wider public's knowledge and understanding of the epidemic. The social and cultural barriers to directing attention towards populations at higher risk are sometimes so great that the political costs of prevention are perceived to eclipse the public health benefits.

HIGH-INCOME COUNTRIES

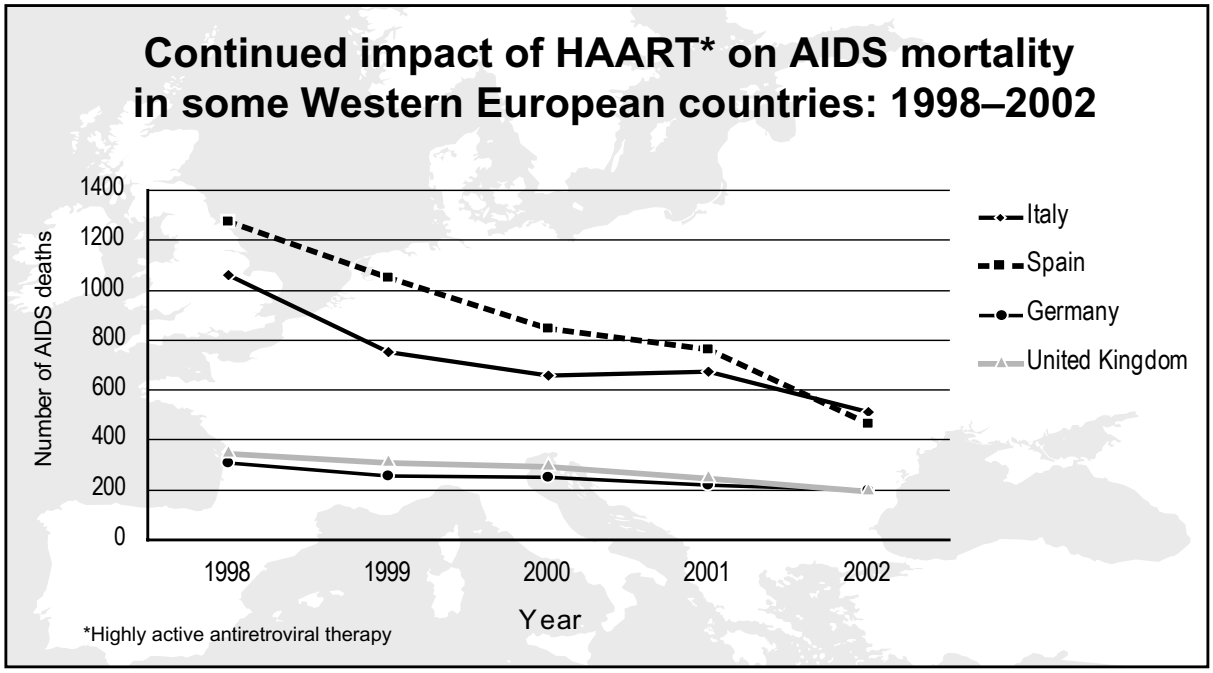
AIDS mortality continues to drop, thanks to the widespread availability of antiretroviral treatment.

The total number of people living with HIV continues to rise in high-income countries, largely due to widespread access to antiretroviral treatment. It is estimated that 1.6 million people are living with HIV in these countries—a figure that includes the 80,000 who were newly infected in 2003. AIDS claimed approximately 18,000 lives in the past year. As Figure 10 illustrates, the number of annual AIDS deaths has continued to slow in high-income countries, including those in Western Europe, due to the widespread availability of antiretroviral treatment.

There is mounting evidence that prevention activities in several high-income countries are not keeping pace with the changes occurring in the spread of HIV. Such shortcomings are most evident where HIV is lodged also among marginalized sections of populations, including immigrants and refugees.

In the United States of America, around half of the approximately 40,000 new infections annually are occurring among African-Americans (12% of the country's population), with African-American women accounting for an increasing proportion of new infections. (Overall, an estimated one-third of new infections is occurring through heterosexual contact.) Many of the women do not engage in high-risk behaviour, but are contracting HIV through unsafe sex with their male partners—a significant share of whom also have sex with men

Figure 10



Source: HIV/AIDS surveillance in Europe (2002). End-of-year report. Data compiled by the European Centre for the Epidemiological Monitoring of AIDS.

or inject drugs. Analysing data from 11 States, a recent US Centers for Disease Control and Prevention study found that 34% of HIV-positive African-American men said they had sex with both women and men. However, only a small proportion of HIV-positive African-American women reported knowing that their partners also had sex with men. The secrecy surrounding such overlapping risk behaviour seems rooted mainly in the stigma that remains attached to homosexuality. The costs are steep: AIDS is now the leading cause of death for African-American women aged 25–34. According to the Centres for Disease Control, some 90% of young urban HIV-positive African-American men who have sex with other men are unaware of their seropositive status. Overall, it is estimated that fully one-quarter of the 850,000–950,000 people living with HIV/AIDS in the USA are unaware that they are HIV-positive.

Sex between men remains an important aspect of the epidemic in most high-income countries. In Germany, Greece and the Netherlands, it is the most common mode of HIV transmission, while in the United States of America (in 2002) and in Australia (in 2001) it accounted for 42% and 86% of new HIV diagnoses, respectively. Yet, the resurgence of other sexually transmitted infections in Australia, Japan, Western Europe and the United States of America points to a revival of high-risk sexual behaviour—especially among young people, including men who have sex with men. The prevention programmes that had achieved notable success in limiting HIV transmission in the 1990s, especially among men who have sex with men, appear to have been shifted to the back burner in many high-income countries.

France, Ireland, the Netherlands and the United Kingdom have reported outbreaks of syphilis in men who have sex with men, with new syphilis cases reported among men who have sex with men in the Netherlands increasing by 182% in 2002, for example. In England and Wales, diagnoses of gonorrhoea at sexually transmitted infection clinics rose by 102% in 1995–2000, with the steepest increases occurring among older teenagers (aged 16–19), while Australia has reported its highest incidence rates for gonorrhoea among adults aged 15–39 since 1997. Reported gonorrhoea cases have increased also in the Netherlands, Sweden and Switzerland. This would seem to indicate that current prevention activities are registering poorly among the younger generation.

Japan is seeing a steady increase in the number of reported HIV infections. The number of new HIV cases reported annually has doubled since the 1990s to more than 600 in 2001 and 2002. This rise has been accompanied by an increase in other sexually transmitted infections over the same period, with the rate of Chlamydia rising by over 50% among women since 1995. There is also evidence of more widespread sexual activity among Japanese youth (reflected in the increase in the percentage of young people who have had sex by the time they turn 19 years of age).

In Western European countries that report HIV cases, heterosexual intercourse may now be the most common mode of HIV transmission. However, a large share of the increase in new HIV infections reported there in 2002 has been attributed to the significant number of persons believed to have been infected elsewhere, in a country with high HIV prevalence. Most of those cases have been recorded in the United Kingdom (where the number of HIV diagnoses reported in 2002 was double that in 1998) and in Germany (where new HIV diagnoses last year rose for the first time since 1997). In the United Kingdom, 70% of heterosexually-transmitted HIV cases were among people who had acquired HIV while living in countries with generalized epidemics. HIV infections apparently acquired elsewhere in the world also accounted for a significant share of new diagnoses in the Netherlands, Norway and

Continuing a trend of recent years, there is more evidence of increasing rates of other sexually transmitted infections—perhaps presaging new increases in HIV incidence.

Sweden. It is vital that prevention, treatment and care programmes be adapted to reach all persons affected by HIV/AIDS, particularly those whose language, culture or immigrant status might limit their access to services.

The role of injecting drug use in the HIV epidemic varies among the high-income countries. In the United States of America and Canada, about 25% of newly acquired HIV infections have been attributed to injecting drug use, whereas, in Australia, injecting drug use accounts for less than 10% of new HIV diagnoses. In Europe, just over 10% of newly diagnosed HIV cases in 2002 were caused by injecting drug use, although, in Portugal, this mode of transmission caused almost half the total HIV infections in 2002. (However, the country is seeing a significant increase in sexually transmitted HIV infections, both heterosexual and between men.) These patterns underscore the need for prevention (and treatment) programmes that reach injecting drug users—including those in prisons and those who belong to marginalized minorities. In Canada, for example, aboriginal persons are overrepresented among injecting drug users.

Defusing stigma and discrimination

Stigma and discrimination both stymie efforts to control the global epidemic and create an ideal climate for further growth. Together, they constitute one of the greatest barriers to preventing further infections, providing adequate care, support and treatment, and alleviating the epidemic's impact.

Stigma and discrimination undermine prevention by making people afraid to find out whether or not they are infected, and discourage people from adopting preventive measures—such as insisting on condom use during sex—that might be interpreted as an acknowledgement that they are HIV-infected.

Stigma and discrimination also create a false sense of security that undermines prevention efforts. Often stigma and discrimination build on existing prejudices and patterns of social exclusion. By associating HIV/AIDS with groups of persons perceived as 'outsiders', people harbour the illusion that they themselves are not at risk of becoming infected. As a result, they may help to perpetuate risky behaviour (such as unsafe sex) because they believe that behaving differently would raise suspicion about their HIV status.

Fear of discrimination is preventing people from seeking treatment for AIDS. People can be deterred from using voluntary counselling and testing services, a linchpin in prevention, treatment and care programmes. Those living with HIV can therefore be left isolated, and deprived of the care and support that could lessen the epidemic's impact.

Even when seeking care and support, people infected with HIV can experience the harsh repercussions of stigma and discrimination. Those seeking care or counselling may be rejected by the very services that should help them, as recent studies illustrate.

A survey conducted in 2002 among some 1,000 physicians, nurses and midwives in four Nigerian states, for example, returned disturbing findings. One in 10 doctors and nurses admitted having refused to care for an HIV/AIDS patient, or had denied HIV/AIDS patients admission to a hospital. Almost 40% thought a person's appearance betrayed his or her HIV-positive status, and 20% felt that people living with HIV/AIDS had behaved immorally and deserved their fate. A lack of knowledge about the virus (often flanked by denigrating attitudes towards people living with HIV) seemed to be one factor fuelling the discrimination. Another was the fear among doctors and nurses about exposure to possible infection as a result of lack of protective equipment. Also at play, it appears, was the frustration at not having medicines for treating HIV/AIDS patients, who therefore were seen as 'doomed' to die. Studies in

Out in the cold

My foster son, Michael, aged 8, was born HIV-positive and diagnosed with AIDS at the age of 8 months. I took him into our family home, in a small village in the south-west of England. At first, relations with the local school were wonderful and Michael thrived there. Only the head teacher and Michael's personal class assistant knew of his illness. Then someone broke confidentiality and told a parent that Michael had AIDS. That parent, of course, told all the others. This caused such panic and hostility that we were forced to move out of the area. The risk is to Michael and us, his family. Mob rule is dangerous. Ignorance about HIV means that people are frightened. And frightened people do not behave rationally. We could well be driven out of our home yet again.

'Debbie' speaking to the National AIDS Trust, UK, 2002

What fuels stigma and discrimination?

Stigma devalues and discredits people, generating shame and insecurity. In the context of AIDS, it can fuel the urge to scapegoat, blame and punish certain people (or groups) in order to detract from the fact that everyone is at risk. Stigma taps into existing prejudices and patterns of exclusion and further marginalizes people who might already be more vulnerable to HIV/AIDS. It stems from the association of HIV/AIDS with sex, disease and death, and with behaviours that may be illegal, forbidden or taboo, such as pre- and extramarital sex, sex work, sex between men, and injecting drug use.

Stigma is harmful, both in itself (since it can lead to feelings of shame, guilt and isolation of people living with HIV), and because it prompts people to act in ways that directly harm others and deny them services or entitlements—actions that take the form of HIV-related discrimination. Such unjust treatment can be tantamount to a violation of human rights.

other regions show that such attitudes and actions are commonplace. In the Philippines, a recent survey among persons living with HIV/AIDS found that almost 50% of respondents had experienced discrimination at the hands of health-care workers, while, in Thailand, 11% of respondents said they had been denied medicine because of their seropositive status, and 9% had experienced delays in treatment. Some 70% of people living with HIV/AIDS in India said they had faced discrimination, most commonly within families and in health-care settings, according to recent International Labour Organization (ILO) research. Such experiences have prompted efforts to promote the greater involvement of people living with HIV/AIDS in India—where several NGOs and networks of HIV-positive people are working to reduce discrimination in local hospitals.

Many people living with HIV/AIDS do not get to choose how, when and to whom to disclose their HIV status. When surveyed recently, 29% of persons living with HIV/AIDS in India, 38% in Indonesia, and over 40% in Thailand said their HIV-positive status had been revealed to someone else without their consent. In many cases, test results were shared with persons other than the spouse or family members; one in nine respondents in a Thai survey said their status had been disclosed to government officials. These kinds of violations of the right to privacy undermine HIV/AIDS programmes by deterring people from finding out their serostatus and thus threaten public health as individuals unknowingly transmit HIV to others.

Given the close links between HIV/AIDS-related stigma, discrimination and human rights

Learning the hard way

The depth of stigma and discrimination should not be underestimated. In Kerala, India, two orphaned children were banished from their school in 2003, and then refused admission to other schools. The reason? They were HIV-positive. In response, they and their grandfather, in Gandhian tradition, staged a hunger strike in front of the Chief Minister's office, insisting on their right to education. The Chief Minister relented and ordered that a state school admit them. However, following a parent-teacher association meeting, the school's students then replied with a boycott of their own, protesting that decision. Bowing to pressure, the government then ordered that the children be schooled at home, effectively barring them from social interaction with other children.

The President of India, the Indian Health Minister, local AIDS authorities and AIDS activists have been appealing to, and working with, the community to dispel the fears and misconceptions that reign in this populous country. Yet, by the end of 2003, almost six months after the debacle began, the children were still forced to receive school lessons and write exams at home. Despite appeals from high-ranking officials, the community has held firm and kept the two orphans at bay.

violations, multiple interventions are needed. Action must be taken both to prevent stigma and to challenge discrimination when it occurs, as well as to monitor and redress human rights violations. Clearly, everyone—from political and social leaders to community members and entertainers—has a role to play in fighting stigma and discrimination.

More and more initiatives are now successfully tackling the denial, ignorance and fear that fuel the cycle of stigma, discrimination and human rights abuses. Some of the most powerful efforts to curb HIV/AIDS-related stigma and discrimination are driven by the involvement of people living with, or affected by, HIV/AIDS. Around the world, they have built organizations, campaigns and even mass movements that mobilize action against the epidemic and that pressure their countries' leaders to tackle the epidemic with resolve. Examples abound—from programmes for leadership training in Zambia, to media and advocacy activities in newspapers and TV programmes, organized by the Belarus 'Positive Movement'. The community-centred approach taken in Zambia, for example, prompted chiefs in the district of Lundazi to lead by example and take an HIV test, successfully mobilizing community members into following their lead. And they went further, decreeing against widow inheritances and other practices that discriminate against women and girls, leaving them more vulnerable to infection.

Egypt's HIV/AIDS hotline is helping pierce the secrecy and ignorance that surround sexuality and HIV/AIDS. The project offers accurate information on HIV/AIDS and provides anonymous counselling. Staff handle some 5,000 calls a year, two-thirds of them from people aged 18–35, and 20% of them from women. Calls come in from all of Egypt, and even from other Arabic-speaking countries. It helps to get the message out early, too. Kami, an HIV-positive Muppet, features in the South African TV programme Talkalani Sesame, in which she broaches HIV/AIDS issues with her friends. The aim is to expose the audience—mainly young children aged 3–6—to AIDS-related stigma and discrimination, and to the ways in which people can challenge or cope with it.

While some companies still prefer to shift the HIV/AIDS burden elsewhere—by demanding pre-employment HIV screening, reducing or removing medical benefits for HIV-positive workers or even firing them—an increasing number of businesses are now implementing workplace prevention and care programmes. Some, such as Volkswagen in Brazil, provide workers with antiretroviral and other AIDS-related treatment. The company's AIDS Care programme, which has been running for several years, includes prevention education, provision of free condoms, counselling and support, as well as access to antiretroviral therapy and clinical tests to monitor treatment. Adopted, too, have been anti-discrimi-

Who cares?

Greater access to effective care, prevention and treatment is vital to breaking the cycle of stigma, discrimination and human rights abuses.

Where treatment is unavailable, there may be little incentive for individuals to discover their HIV status—all the more so if the likely outcome is rejection and discrimination if they are found to be HIV-positive. Increased access to treatment is one of the most powerful incentives for individuals to learn their HIV status. And the prospect of a longer, more productive life for individuals encourages communities to reassess the way they relate to people living with HIV, creating a sense of hope and reducing the anxieties that can trigger stigma.

The World Health Organization (WHO) and UNAIDS are spearheading a bold initiative to roll out antiretroviral treatment to 3 million people, in areas of most need, by the end of 2005. In addition, a growing number of countries are setting up national comprehensive prevention and care programmes. These initiatives can help lift the pall of suspicion and secrecy that accompanies the epidemic.

Living up to promises

As part of their Declaration of Commitment on HIV/AIDS, drawn up at the United Nations General Assembly Special Session on HIV/AIDS in June 2001, Member States agreed to:

... by 2003, enact, strengthen or enforce, as appropriate, legislation, regulations and other measures to eliminate all forms of discrimination against, and to ensure the full enjoyment of all human rights and fundamental freedoms by, people living with HIV/AIDS and members of vulnerable groups, in particular to ensure their access to, inter alia, education, inheritance, employment, health care, social and health services, prevention, support and treatment, information and legal protection, while respecting their privacy and confidentiality; and develop strategies to combat stigma and social exclusion connected with the epidemic (paragraph 58).

nation measures that include guaranteeing the right to confidentiality for workers living with HIV/AIDS, and prohibiting mandatory testing and firing of workers with HIV. Within a few years, the company was reporting a steep drop in hospitalizations and a considerable reduction in treatment and care costs. Such workplace programmes can successfully challenge HIV-related stigma and discrimination.

Meanwhile, the Philippines' HIV/AIDS Control and Prevention Act remains an example of how legislation with strong provisions for protecting people living with HIV/AIDS can serve as a useful instrument for combating HIV-related discrimination. Such legislative and supportive policy environments can help empower communities to tackle stigma, discrimination and human rights violations more effectively.

HIV/AIDS-related stigma and discrimination will only be reduced if it is challenged simultaneously on several fronts:

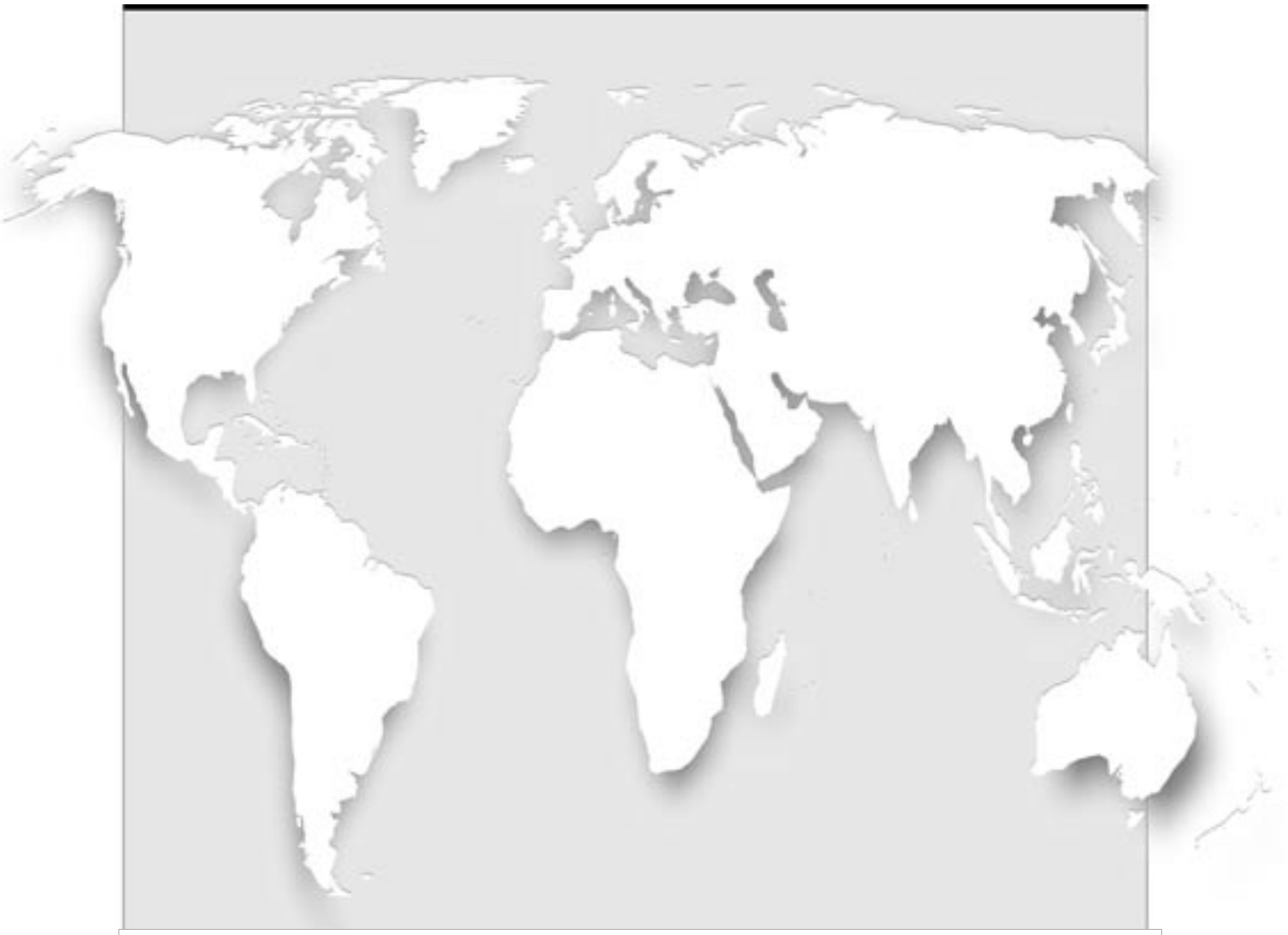
- inside communities, where media-based efforts can be directed at public opinion to improve the environment of people living with HIV/AIDS;
- in settings such as workplaces, hospitals and clinics, places of worship and education establishments, where equitable policies and educational programmes can counter stigma, discrimination and human rights violations; and
- in the courts, where people can invoke legal rights and duties in order to promote and protect the human rights of people living with HIV/AIDS.

Pitting the law against stigma and discrimination

The law can be a powerful tool against stigma and discrimination. For example, Venezuela's *Acción Ciudadana Contra el Sida* (Citizens' Action against AIDS), has, since the late 1980s, been fighting human rights violations against persons living with HIV/AIDS. It provides free legal advice, acts in cases and handles legal appeals regarding discrimination in employment, medical practice, and social services. The organization has helped extend the scope of a treatment-and-care programme set up within the country's social security system, and it was instrumental in obtaining antiretroviral and other treatment, confidential care and pensions for four military claimants in a landmark case against the Ministry of Defence. The latter ruling set a precedent for the rights to work, privacy, non-discrimination, dignity and 'psychological and economic attention', as well as health care for all military personnel. In July 1999, the Supreme Court ordered the Ministry of Health to provide antiretroviral therapy, treatment for opportunistic infections and diagnostic testing free of charge to all Venezuelan residents living with HIV/AIDS.

Maps

GLOBAL ESTIMATES FOR ADULTS AND CHILDREN, END 2003



People living with HIV/AIDS	**40 million (34 – 46 million)**
New HIV infections in 2003	**5 million (4.2 – 5.8 million)**
Deaths due to HIV/AIDS in 2003	**3 million (2.5 – 3.5 million)**

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information. These ranges are more precise than those of previous years, and work is under way to increase even further the precision of the estimates that will be published mid-2004.

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • WFP • UNDP • UNFPA • UNODC
ILO • UNESCO • WHO • WORLD BANK

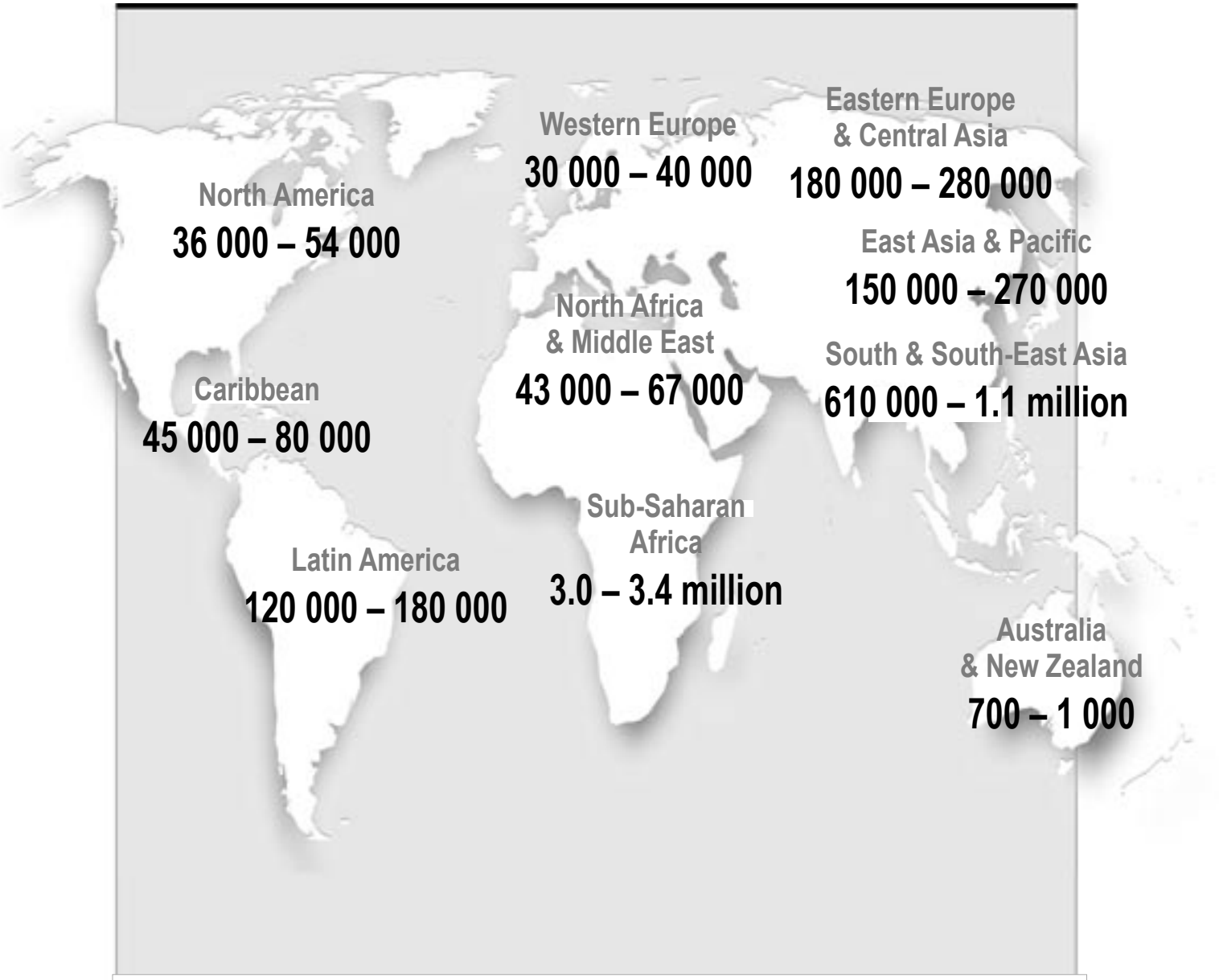
World Health Organization

AIDS epidemic update: December 2003

ADULTS AND CHILDREN ESTIMATED TO BE LIVING WITH HIV/AIDS, END 2003

Total: 34 – 46 million

ESTIMATED NUMBER OF ADULTS AND CHILDREN NEWLY INFECTED WITH HIV DURING 2003

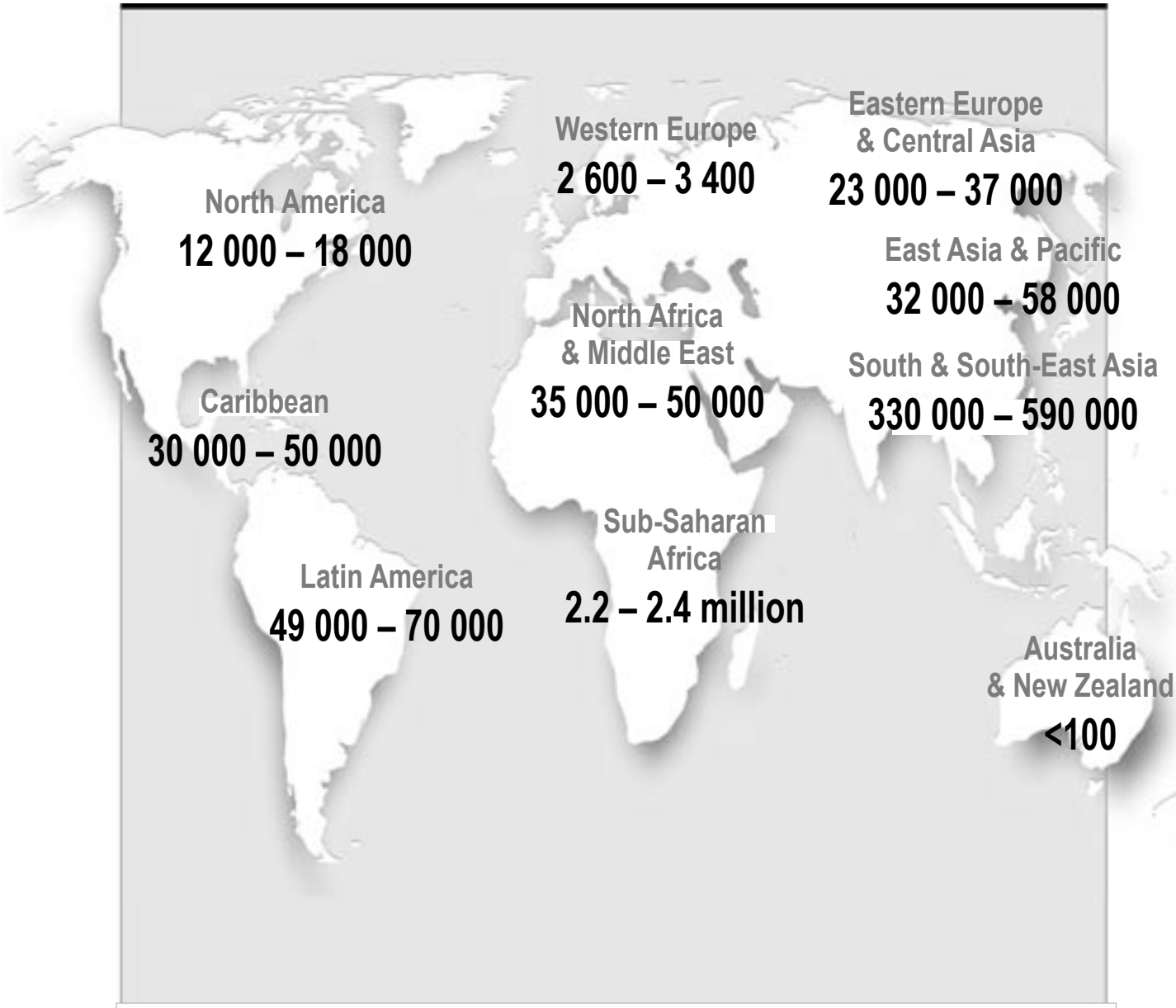


Total: 4.2 – 5.8 million

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • WFP • UNDP • UNFPA • UNODC
ILO • UNESCO • WHO • WORLD BANK

World Health Organization

ESTIMATED ADULT AND CHILD DEATHS DUE TO HIV/AIDS DURING 2003



Total: 2.5 – 3.5 million

AIDS epidemic update: December 2003

World Health Organization

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • WFP • UNDP • UNFPA • UNODC
ILO • UNESCO • WHO • WORLD BANK

NOTES

NOTES

Explanatory note about UNAIDS/WHO estimates

The UNAIDS/WHO estimates in this document are based on the most recent available data on the spread of HIV in countries around the world. They are provisional. UNAIDS and WHO, together with experts from national AIDS programmes and research institutions, regularly review and update the estimates as improved knowledge about the epidemic becomes available, while also drawing on advances made in the methods for deriving estimates. Because of these and future advances, the current estimates cannot be compared directly with estimates from previous years, nor with those that may be published subsequently.

The estimates and data provided in the graphs and tables are given in rounded numbers. However, unrounded numbers were used in the calculation of rates and regional totals, so there may be small discrepancies between the global totals and the sum of the regional figures.

UNAIDS and WHO will continue to work with countries, partner organizations and experts to improve data collection. These efforts will ensure that the best possible estimates are available to assist governments, nongovernmental organizations and others in gauging the status of the epidemic and monitoring the effectiveness of their considerable prevention and care efforts.

The annual *AIDS epidemic update* reports on the latest developments in the global HIV/AIDS epidemic. With maps and regional summaries, the 2003 edition provides the most recent estimates of the epidemic's scope and human toll, explores new trends in the epidemic's evolution, and features a special section examining stigma and discrimination.

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