



**ON THIS WORLD AIDS  
DAY IN 2008/20 YEARS  
AFTER THE FIRST ONE/  
SEVERAL MILESTONES  
HAVE BEEN REACHED**

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**AIDS OUTLOOK/09** is a new report from UNAIDS that provides perspectives on some of the most pressing issues that will confront policymakers and leaders as they respond to the challenges presented by AIDS in 2009.

In many ways the year ahead will be a year of transition—and acceleration. Many countries are reviewing their national strategies on AIDS. Even though political commitment for AIDS is at an all-time high, recent developments in the financial world will test the resilience of many.

This report is an opportunity for reflection. Reflection on what it has been possible to achieve with leadership as well as for refocusing on some key areas that are impeding progress. It is not a “how to manual” or a “policy statement”, but provides insights based on evidence on new ways to build on and improve the AIDS response.

The report begins by highlighting some recent achievements and challenges in addressing HIV. It provides examples of how countries are applying modelling techniques to better understand HIV incidence, with the aim of reinvigorating HIV prevention. **AIDS Outlook** concludes with an introduction to combination HIV prevention and its application.

**AIDS Outlook** relies upon both estimates of HIV prevalence and impact from data collected from around the world—as well as perspectives from those responding to AIDS in countries and communities. Joining data with instrumental voices will help to identify the debates needed and decisions required for countries as they plan their future strategies.

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Condoms are an essential part of combination prevention which includes among other elements, access to information about HIV, access to treatment, harm reduction measures, waiting longer to have sex, being faithful, reducing multiple partners and concurrent relationships, ensuring human rights and reduction of stigma.

DECLINE IN NUMBER OF NEW HIV INFECTIONS:

3 MILLION → 2.7 MILLION  
2001 2007

FEWER INFECTED INDIVIDUALS DYING:

2.2 MILLION → 2 MILLION  
2005 2007

MORE PEOPLE ON TREATMENT:

+ 1 MILLION IN ONE YEAR  
2007

SOURCE: UNAIDS, 2008



Photo: UNAIDS/G. PIROZZI

**ON THIS WORLD AIDS DAY IN 2008 – 20 YEARS AFTER THE FIRST ONE – SEVERAL MILESTONES HAVE BEEN REACHED RECENTLY. THE MOST SIGNIFICANT ONES:**

FEWER PEOPLE BECOMING NEWLY INFECTED WITH HIV—ESTIMATES DECLINING TO 2.7 MILLION IN 2007 FROM 3 MILLION IN 2001 THERE IS ALSO A GLOBAL STABILIZATION OF THE PERCENTAGE OF PEOPLE LIVING WITH HIV.

THE NUMBER OF CHILDREN NEWLY INFECTED WITH HIV DECLINING TO 370 000 IN 2007 FROM 450 000 IN 2000 DUE TO INCREASING COVERAGE OF PROGRAMMES FOR PREVENTING MOTHER-TO-CHILD TRANSMISSION OF HIV AND STABILIZATION OF HIV PREVALENCE AMONG PREGNANT WOMEN.

FEWER PEOPLE DYING FROM HIV-RELATED ILLNESSES:  
AN ESTIMATED 2 MILLION IN 2007 DECLINING FROM AN ESTIMATED 2.2 MILLION IN 2005

ONE MILLION MORE PEOPLE GETTING HIV TREATMENT IN HOSPITALS AND CLINICS IN THE DEVELOPING WORLD LAST YEAR ALONE, INCREASING THE TOTAL TO 3 MILLION PEOPLE AT THE END OF 2007—A MORE THAN TEN-FOLD INCREASE FROM FIVE YEARS BEFORE\*

THE TOTAL NUMBER OF PEOPLE LIVING WITH HIV IS INCREASING DUE TO ONGOING NEW INFECTIONS, PERSONS ALIVE AS A RESULT OF TREATMENT, AND POPULATION GROWTH.

RANGES FOR THE ABOVE ESTIMATES ARE AVAILABLE ON PAGE 20.  
SOURCE:UNAIDS, 2008.\*WHO, 2008.

**AND ON THIS DAY, OTHER GOALS ARE WITHIN REACH.** Most importantly, a new set of analyses that identify the population groups in which new HIV infections have been occurring are now being developed in many countries. This information could better guide HIV prevention programmes and, many hope, start the process of reversing the numbers of new infections. It will be up to countries to act on this new information.

Treatment programmes have continued to expand and meet new challenges over time. Many clinics are now seeing patients responding well to antiretroviral treatment. Still, in 2007, 55 countries reported that fewer than 25% of adults and children in need of those therapies received them. And 88 out of 113 developing countries reported that fewer than half of mothers received services to prevent the transmission of HIV to their children during birth (UNAIDS, 2008).

Spanning a period of just 27 years since five gay men in the United States were first identified with AIDS (CDC, 1981), the epidemic has claimed the lives of more than 25 million people so far across the globe.

**BUT, MANY OTHER INDICATORS CONTINUE TO EXPOSE THE DEPTH OF THE CRISIS.** The most worrying is that for every two people put on treatment, five others are newly infected. With this continuing high number of new infections, and with so many deaths averted because of the provision of antiretroviral medicines, the number of people living with HIV has climbed, to 33 million people in 2007 (UNAIDS, 2008).

**OVER 7400 NEW HIV INFECTIONS EACH DAY IN 2007**

MORE THAN **96%** ARE IN LOW AND MIDDLE INCOME COUNTRIES

ABOUT **1000** ARE IN CHILDREN UNDER 15 YEARS OF AGE

ABOUT **6300** ARE IN ADULTS AGED 15 YEARS AND OLDER OF WHOM: ALMOST **50%** ARE AMONG WOMEN ABOUT **45%** ARE AMONG YOUNG PEOPLE (15-24)

**FOR EVERY TWO PEOPLE PUT ON TREATMENT FIVE OTHERS ARE NEWLY INFECTED**

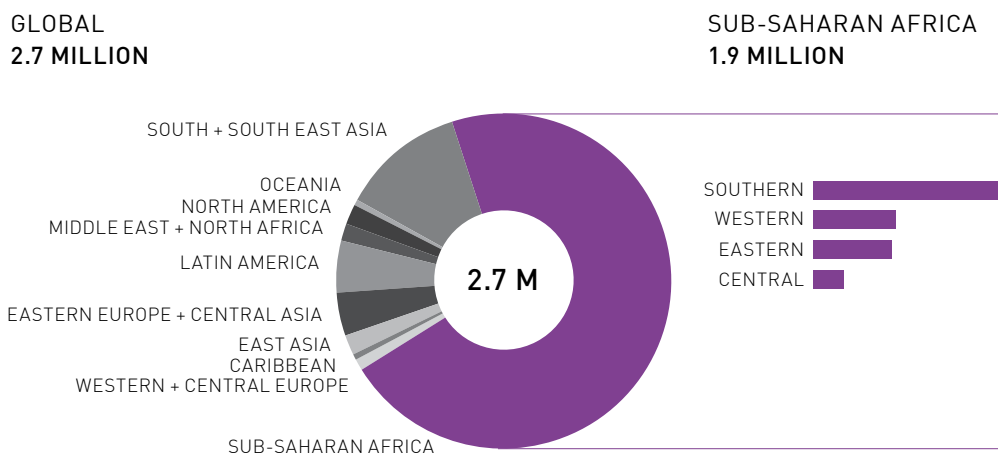
It is important to note yet again that the epicentre of the epidemic remains in sub-Saharan Africa. Two-thirds of all people living with HIV are African. Three-quarters of the deaths in 2007 were in Africa. And if 100 random adults in sub-Saharan Africa were tested, the average number of those found to be HIV-positive would be five (UNAIDS, 2008).

Add to this an evolving new challenge: the global financial crisis, raising the spectre of funding cutbacks, which would have harmful impacts throughout the developing world generally and in the AIDS response in particular. With the estimated number of people living with HIV so high a pressing concern today is whether donors and countries will continue to support a wide range of initiatives against AIDS that would sustain and build upon past

successes. If funding is in doubt, how will treatment programmes stay ahead of the growing demand for antiretroviral therapies? If funding is cut, where will the support come for a host of invigorated prevention initiatives? The answers will affect millions of lives.

04

FIGURE 1. GLOBAL DISTRIBUTION OF NEW HIV INFECTIONS, 2007



Source: 2008 Report on the global AIDS epidemic, UNAIDS.



 — **66%** OF PEOPLE LIVING WITH HIV  
ARE IN SUB-SAHARAN AFRICA.

 — **75%** OF DEATHS FROM AIDS  
WERE IN SUB-SAHARAN AFRICA.

TABLE 1. REGIONAL HIV AND AIDS STATISTICS AND FEATURES, 2007

	Adults + Children living with HIV	Adults + Children newly infected with HIV	Adult Prevalence (15–49) [%]	Adult + Child deaths due to AIDS
<b>SUB-SAHARAN AFRICA</b>	<b>22.0 million</b> [20.5 – 23.6 million]	<b>1.9 million</b> [1.6 – 2.0 million]	<b>5.0%</b> [4.6 – 5.4%]	<b>1.5 million</b> [1.3 – 1.7 million]
<b>MIDDLE EAST + NORTH AFRICA</b>	<b>380,000</b> [280,000 – 510,000]	<b>40,000</b> [20,000 – 66,000]	<b>0.3%</b> [0.2 – 0.4%]	<b>27,000</b> [20,000 – 35,000]
<b>SOUTH + SOUTH EAST ASIA</b>	<b>4.2 million</b> [3.5 – 5.3 million]	<b>330,000</b> [150,000 – 590,000]	<b>0.3%</b> [0.2 – 0.4%]	<b>340,000</b> [230,000 – 450,000]
<b>EAST ASIA</b>	<b>740,000</b> [480,000 – 1.1 million]	<b>52,000</b> [29,000 – 84,000]	<b>0.1%</b> [<0.1 – 0.2%]	<b>40,000</b> [24,000 – 63,000]
<b>LATIN AMERICA</b>	<b>1.7 million</b> [1.5 – 2.1 million]	<b>140,000</b> [88,000 – 190,000]	<b>0.5%</b> [0.4 – 0.6%]	<b>63,000</b> [49,000 – 98,000]
<b>CARIBBEAN</b>	<b>230,000</b> [210,000 – 270,000]	<b>20,000</b> [16,000 – 25,000]	<b>1.1%</b> [1.0 – 1.2%]	<b>14,000</b> [1,000 – 16,000]
<b>EASTERN EUROPE + CENTRAL ASIA</b>	<b>1.5 million</b> [1.1 – 1.9 million]	<b>110,000</b> [67,000 – 180,000]	<b>0.8%</b> [0.6 – 1.1%]	<b>58,000</b> [41,000 – 88,000]
<b>WESTERN + CENTRAL EUROPE</b>	<b>730,000</b> [580,000 – 1.0 million]	<b>27,000</b> [14,000 – 49,000]	<b>0.3%</b> [0.2 – 0.4%]	<b>8,000</b> [4,800 – 17,000]
<b>NORTH AMERICA</b>	<b>1.2 million</b> [760,000 – 2.0 million]	<b>54,000</b> [9,600 – 130,000]	<b>0.6%</b> [0.4 – 1.0%]	<b>23,000</b> [9,100 – 55,000]
<b>OCEANIA</b>	<b>74,000</b> [66,000 – 93,000]	<b>13,000</b> [12,000 – 15,000]	<b>0.4%</b> [0.3 – 0.5%]	<b>1,000</b> [1,000 – 1,400]
<b>TOTAL</b>	<b>33 million</b> [30 – 36 million]	<b>2.7 million</b> [2.2 – 3.2 million]	<b>0.8%</b> [0.7 – 0.9%]	<b>2.0 million</b> [1.8 – 2.3 million]

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information. Source: 2008 Report on the global AIDS epidemic, UNAIDS.





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**KNOW YOUR EPIDEMIC—SO YOU KNOW WHERE TO RESPOND.** For many years, UNAIDS and its Cosponsors have given the same advice to countries about their prevention strategies: know your epidemic and know your response. Most have acted on it, but they needed to know more than just the numbers or the districts where infections were happening. They needed data that would allow them to understand the dynamics of their epidemic, or various sub-epidemics. Now, by undertaking modes of transmission analyses, many countries have estimates for the populations groups where new infections are most likely to occur and, therefore can begin to better understand their epidemic and act accordingly

In 11 sub-Saharan African countries—five in the east and south (Kenya, Lesotho, Mozambique, Swaziland and Uganda), and six in the west (Benin, Burkina Faso, Cote d'Ivoire, Ghana, Nigeria and Senegal)—national HIV experts have just produced, or will produce in the coming months, new information that will give them estimates of who has been newly infected in the last year. Some additional African countries—Botswana, Ethiopia, Malawi, Tanzania and Zambia—have also recently completed or are finalizing similar incidence estimates. Outside Africa, several Asian countries (including Cambodia, Thailand and Viet Nam) conducted similar analyses. More are being planned in other regions, including in Latin America.

In some countries, with the early results from the modes of transmission studies available, policymakers have already gained new insights. Incidence estimates in particular have highlighted three broad trends.

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**Trend 1.** In many sub-Saharan African countries with HIV high prevalence, new infections occur mainly as a result of having multiple sex partners and among discordant couples, that is where one partner is HIV positive and one is HIV negative.

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**Trend 2.** In many countries, even in nations with high prevalence among the general population, substantial numbers of new infections might also occur in populations at higher risk of exposure to HIV, including sex workers and their clients, injecting drug users, and men who have sex with men—groups who often receive little attention in prevention initiatives.

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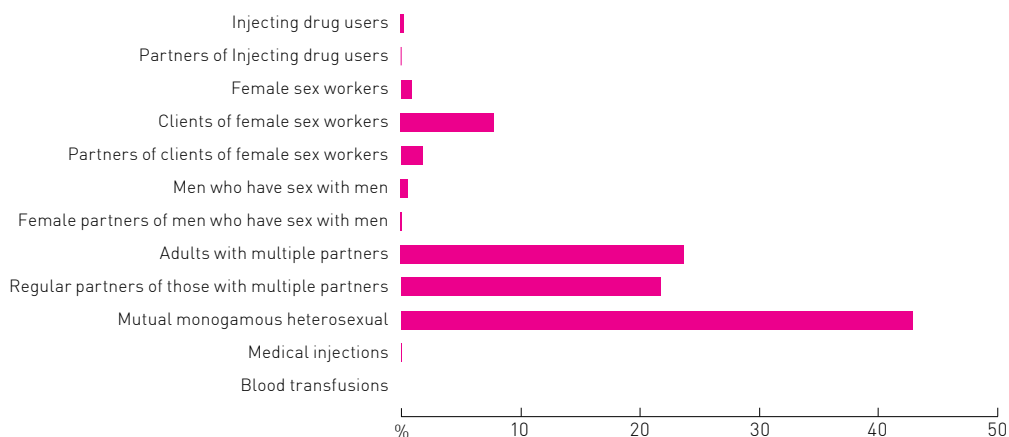
**Trend 3.** Patterns of epidemics can, and probably will, change over time and therefore such analyses must be undertaken frequently.

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**Trend 1. Example**

Uganda's "modes of transmission" analysis showed that approximately 43% of new HIV infections were estimated to be occurring among "low-risk" couples in which one partner was HIV positive and the other negative. An estimated 44% of the infections came from those who have multiple sex partners, including their regular partners, and about 11% were related to sex work. These findings underscored the need to focus prevention efforts at people in marriages or long-term relationships. Such prevention strategies would include promoting couples counselling and testing, in which both reveal their HIV status; efforts to reduce the number of sexual partners; and emphasizing consistent condom use for couples that are discordant—one HIV positive, one HIV negative—along with access to HIV treatment for the positive partner (Government of Uganda, 2008).

FIGURE 2. ESTIMATED DISTRIBUTION OF NEW INFECTIONS AMONG ADULTS, Uganda



Source: Government of Uganda, UNAIDS, Uganda AIDS Commission, 2008

“We found in Uganda that we should really monitor new infections and focus our response among the people who are seemingly in long-term, monogamous relationships,” said Professor Fred Wabwire-Mangen, the team leader of the Uganda modes of transmission study and an associate professor of infectious disease epidemiology at the Makerere University School of Public Health in Kampala. “A number of things are happening with those couples in long-standing relationships. First, they don’t use condoms. Second, they do not test as much. We need to encourage them to test—and not only to test, but also to disclose to their partner.”

Now, said Wabwire-Mangen, Ugandan policymakers will take the results and examine whether current programmes match the spread of the epidemic, in order to check if they are spending money in areas that desperately need interventions.

“You ask yourself, ‘Are we putting the resources in the right place? Are we putting resources where the infections are occurring?’ The study should tell you whether you are on course,” he said. “The challenge for our countries is to prevent new infections, as well as to provide treatment, care and support, and to reintegrate HIV-positive people in the economic and social activities.”

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### Trend 2. Example

In 2006, an analysis of the distribution of new infections in Kenya showed that the majority of new infections occurred in the general population as a result of casual sex or discordancy, but also found other sources of infections that were largely overlooked in the country (Gouws et al., 2006).

“What was immediately striking from Kenya was the substantial numbers of new infections occurring among injecting drug users and men having sex with men, and those groups had previously received little attention,” said Professor Alloys Orago, Director of Kenya’s National AIDS Control Council. “Five to six percent of all new infections were explained by each of these groups. That might seem small, but the estimated HIV incidence rates within these populations are actually very high.”

Two years after this review, Kenya updated its modes of transmission study and found other holes in its prevention strategy. The picture of new infections grew more complicated and contained many regional variations.

“In Kenya, in the fishing communities, or transport groups in urban areas, we found high levels of prevalence,” said Professor Orago. “We also found in some areas a combination of injecting drug users, sex workers, and men having sex with men was more significant than previously known. Despite those variations in the epidemic, Kenya still has long had a generalized approach to prevention. The new study is likely to lead to new strategies to address the prevention of transmission from men who have sex with men, or injecting drug users, those in the fishing community, or among the migrant population.”

In many other countries in sub-Saharan Africa, where heterosexual transmission dominates the HIV epidemic, many infections were occurring in at-risk groups. In **Unguja, Zanzibar**, men who have sex with men had an HIV prevalence of 12.3% (Holman, 2008). In **Malawi**, HIV prevalence among men who have sex with men was 21%, compared to the national prevalence of 14.1% (Umar, 2008). And in two cities in **southwestern Nigeria**, the story was similar to Malawi’s: HIV prevalence was 13.4%—or 3.5 times higher than the national prevalence among men who have sex with men (Adebajo, 2008). In Kenya, the estimated HIV prevalence among injecting drug users was 42.9%, and it was estimated to be 12.4% in South Africa (Mathers et al 2008).

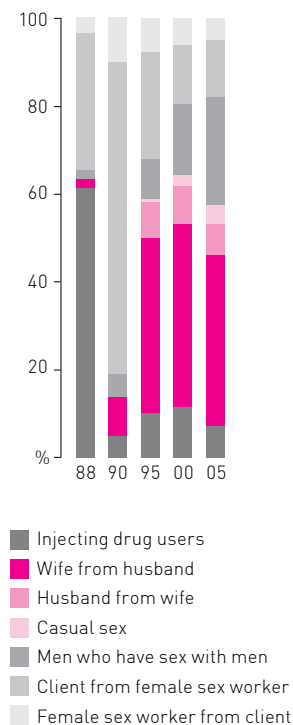
### Trend 3. Example

Research in Thailand has identified changes in the epidemic over time. In the early 1990s, the government rightly focused on promoting consistent condom use among sex workers and their clients and some work on safe injection practices was undertaken among injecting drug users. Recent research by UNAIDS (Gouws et al., 2006) and the Thai Working Group on HIV/AIDS Projection and the Analysis and Advocacy Project in Thailand have found that the majority of new infections are occurring in the general population as well as among men having sex with men.

According to the Asia Commission report on AIDS, socio-cultural restrictions on women’s sexual autonomy are one of the reasons why casual sex remains a minor factor in Asia’s HIV epidemics. But if increases in unprotected casual sex contribute to a greater proportion of all infections, they are unlikely to be the most important fraction of HIV epidemics in the foreseeable future. In several Asian countries, significant resources are invested in trying to discourage unsafe casual sex among young people, while other modes of transmission have been relatively neglected (Commission on AIDS in Asia. 2008).

The fact that a large proportion of those who are at high risk of HIV infection are young does not mean that HIV prevalence and incidence levels are uniformly high across the whole population of young people. But those young people who sell or buy sex, or inject drugs, or young men who have sex with men, are at substantially higher risk of being exposed to HIV than other young people, making it clear that youth HIV responses need to be directed especially towards these young people.

FIGURE 3. CHANGE IN NEW INFECTION PATTERNS, Thailand



Source: Thai Working Group on HIV/AIDS Projection and the Analysis and Advocacy (A<sup>2</sup>) Project in Thailand, 2008.



At the end of 2008, Dr Peter Piot, the founding Executive Director of UNAIDS, will leave his post after leading the organization since his appointment in 1994. He reflected on past milestones and future challenges in an interview with John Donnelly:

**LOOKING AHEAD – ‘GET UP, STAND UP, DON’T GIVE UP THE FIGHT’****How are you feeling on the eve of your departure?**

Peter Piot: I thought my last couple of months would be pretty quiet. (Laughs) I underestimated that a bit. But my main objective has been to secure our funding for next year. That is always a challenge.

**When you look back on your time at UNAIDS, what do you consider the three biggest breakthroughs?**

PP: The first one came in 1996, when treatment was discovered and became available, and equally important to that was the major reduction in the price of antiretrovirals later. They are both very important milestones.

The second one was the UN General Assembly Special Session on HIV/AIDS in 2001. That was a turning point. After that, the Global Fund (to Fight AIDS, Tuberculosis and Malaria) was created; presidents and prime ministers took charge of the response in many countries; AIDS made it to the top of the agenda in the world. It was no longer just an issue for ministers of health. It was discussed in places where you discuss the really big issues.

And the third thing, I guess, is that the fact that the money we spent last year on AIDS reached US\$ 10 billion. It’s a formidable resource mobilization. A really important part of that is the major role of people living with HIV. Money is the result of the combination of this activism and the political work symbolized in the General Assembly session.

**Can you describe a moment when you received epidemiological data that scared you?**

PP: Many of them. My most recent experience was when I saw the data recently on the rise in HIV in the gay populations in Asia. It was exactly what we saw in the West in the early 1980s. I saw the same thing with injecting drug users in Eastern Europe about 10 years ago. And when I was working in central Africa, in then Zaire, in the mid-1980s, South Africa had less than 2% prevalence. Then, a few years later, you saw it skyrocketing, and say, ‘Wow. That’s unbelievable.’ There have been many moments like this. It’s something that I think we should bear in mind when we think of the future of this epidemic. The virus will continue to surprise us. That’s why I’m very sceptical when people say about Asia, ‘Oh, it will be limited to concentrated populations.’ Maybe, maybe not. We don’t know.

**Has the fight against AIDS strengthened or weakened health systems?**

PP: There’s absolutely no evidence that I’ve seen that it undermines health services. If anything, it certainly strengthened certain services, such as laboratories. Determined governments will make sure that disease specific funding is used to strengthen local capacity. The AIDS epidemic itself has overburdened health systems. It also for the first time has brought money to strengthen the health workforce in, say, Malawi where they even built health clinics

with AIDS funds. Ethiopia is another example. They have a strong government and a strong minister of health. He has been using AIDS funds to build rural health clinics. But let's also not forget that if we had waited until the health services were fixed before introducing antiretroviral therapy, as so many suggested, we would still be nowhere on ART and millions would have died.

**What concerns you most about the response to the epidemic today?**

PP: What really concerns me is that while we've made measurable progress on access to treatment, we don't have the same impact when it comes to HIV prevention. Is it because we need more time, or are we not on the right track? I personally think more and more that we need to be working with the professionals who do the marketing for branding businesses, who know how to influence people's behaviors. HIV prevention is what will require the extra shot in the arm.

**You've identified a US\$ 10 billion annual shortfall in the fight against AIDS. What's your best argument to increase funding?**

PP: The number one argument is that funding for AIDS works, is saving lives, and has shown high return on investments. The needs are there. Just take treatment—close to 4 million are now on antiretrovirals today, but still about 8 million need it. Also, we are so far better equipped to spend the money before. Initially, systems had to be developed, labs established, people trained. Delivering the goods is now cheaper because we have made the initial investments.

**How could the global financial crisis affect programmes?**

PP: If there's a decline in funding, the return on the investment will be much less. Postponing action just increases the bill later on. I worry now that governments will cut the social sector first. That is often the experience in economic downturns. In Japan, after their financial crisis in 1990, they cut development assistance by 60%. And without ODA, without The Global Fund, the heavily AIDS-affected and poorest countries won't be able to run their AIDS programmes.

In developing countries, governments may have less income. They may have fewer remittances, less private direct investments. That means more people will be vulnerable, and could lead to an increase in sex work. We don't know this will happen. But it's something I'm very concerned about.

**You often describe yourself as an activist. What is your grade for activists over the past several years? Where have they succeeded? Failed?**

PP: I think activists have been hugely successful in terms of treatment, advocacy, and mobilizing funds, particularly for The Global Fund. That's a top grade. But as for activists working for prevention, well, Treatment Action Campaign in South Africa is doing it, but they are an exception.

**How do you take politics out of the prevention debates?**

PP: It's not possible—and there's nothing wrong with that. It's about fundamental choices in society and life. Thinking that we could have a society that is completely rational about these

things is an illusion and may not be good. ... You need to have a set of values and principles guiding policies, and then you automatically get into politics with AIDS. The key is to make sure it is good politics, the politics where as much as possible that if there is scientific evidence, that evidence is used to save lives. There are still countries where harm reduction in working with drug users is against the law. That's bad politics.

**What's going to be especially hard in prevention work ahead?**

PP: In Asia and Eastern Europe, we have to start looking beyond sex workers and drug users, and how it could make inroads in the general population. And secondly, in an increasing number of eastern and southern African countries, up to half of all infections are occurring in stable couples. How do we deal with that? That calls for a revision in our approaches. In addition we need help from business to professionalize HIV prevention.

"WHAT REALLY CONCERNS ME IS THAT WHILE WE'VE MADE MEASURABLE PROGRESS ON ACCESS TO TREATMENT, WE DON'T HAVE THE SAME IMPACT WHEN IT COMES TO HIV PREVENTION."

**What will be the role of the modes of transmission studies that show where the new infections are likely to occur?**

PP: They should be very helpful because we don't always know what is going on. We may be basing our prevention work on where the epidemic was five years ago. It may have changed, or may not have changed. My concern is not only that we have good studies, but the studies are used. In Lesotho, similar studies led to changes. In Thailand, they are trying to change the prevention approach based on new information, and in China, the studies are drawing attention to homosexual men. Most difficult will be in countries with generalized epidemics—how to interpret the information. If HIV is in married or stable couples, boy, that's quite a lot of people, and how do you do that?

**In your speech at the International AIDS Conference in Mexico City, you quoted Bob Marley's lyrics, "Get up, stand up, don't give up the fight". Then you said, "That's what I will do. What will you do?"**

PP: I don't know yet. I'll be in an academic position at Imperial College in London, United Kingdom, and will continue some work in AIDS, but as a citizen and member of the community. I need some time now to work on my next life. But I definitely want to work across disciplines. Like Bob Marley said, 'We've got a mind of our own'.

The International AIDS Conference in August in Mexico City greatly advanced public awareness about AIDS among young people with special needs. The speech by 12-year-old Keren Dunaway, given during the opening ceremony, resonated throughout the entire region as well as the world.

Keren, who was infected at birth from her mother, shared the stage with Mexican President Felipe Calderon and U.N. Secretary-General Ban Ki-moon, but she stole the show. The audience interrupted her speech frequently with loud cheers, and at the end of her speech they stood to applaud and applaud, long after she had left the stage.



Photo:IAS

“The boys and girls who live with HIV are here and we are growing up with many goals,” she told the crowd.

“We want to be artists, teachers, doctors—even get married and have kids.... But achieving these goals will only be possible when we receive the attention we need, when we are guaranteed the medicines that we need, when we are accepted in schools.”

**Incidence estimates by themselves cannot change prevention strategies.** But the studies can inform analysis of the HIV prevention response and provide pointers to where prevention efforts must be directed. The choice of strategies will have to come from HIV prevention experts and communities themselves.

In the five eastern and southern African countries that have finished or about to finish the modes of transmission analyses, steering committees were formed consisting of representatives from the government, multilateral groups, and nongovernmental organizations. Each steering committee reviewed the findings as they emerged. The five countries share a sense of enthusiasm about using these analyses to decide what their national priorities in HIV prevention need to be.

“With this information we have fine-tuned our behavioural change and communication strategy and future programming of prevention interventions,” said Keketso Sefeane, Chief Executive of the Lesotho National AIDS Commission. “At the community level, the results will assist in refocusing the choice of HIV prevention activities during the implementation of the Essential Services Package of interventions. The results of the modes of transmission study along with the multiple and concurrent sexual partnership study have assisted us to reconfirm findings as well as amplified our understanding of the key drivers of the epidemic in Lesotho. These results will also provide input into the ongoing mid-term review of our National HIV and AIDS Strategic Plan for 2006 to 2011 to be completed by March 2009,” he said.

Thailand has applied such analyses in the shaping of their HIV prevention programmes for many years. “Data from Thailand’s existing HIV surveillance system among most-at-risk populations since 1989 and general populations since 1990 has shown the evolution of the epidemic in the country that has a combination of generalized and concentrated epidemic in certain population groups,” said Dr. Petchsri Sirinirun, Senior Expert at the Department of Disease Control in the Ministry of Public Health in Thailand.



In Thailand, national authorities, civil society organizations and the private sector came together and used the information to develop their current national strategic plan. For the first time, most-at-risk populations such as sex workers, men who have sex with men, and people who inject drugs have been explicitly mentioned and programmes specifically planned for them.

"Together with findings from other specific studies and behavioral surveillance, different strategies for targeting specific groups of population for HIV prevention programmes have been outlined in our National AIDS Strategic Plan for 2007-2011," said Dr. Petchsri Sirinirun.

Mozambique, too, is gearing up to use these analyses in the development of its new national strategic plan. "We believe that the report elaborated by the National Prevention Reference Group to intensify and accelerate prevention, as well as the modes of transmission study, bring important elements that the new national strategic plan will not be able to ignore in the search for an innovative and effective response for Mozambique and the region," said Joana Mangureira, Chief Executive of the National AIDS Coordinating Body.

"We need the knowledge and experience of everything that offers us a better understanding of the epidemic so that we can act with more effectiveness and efficiency," she said.

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**REINVIGORATING HIV PREVENTION THROUGH COMBINATION APPROACHES.** Countries and communities must now match their funding more strategically to prevention programmes that focus on where their new infections will come from.

A series of articles in the medical journal **The Lancet**, published in August 2008, sought to galvanize the scientific, advocacy and political communities to adopt a more intensive and more effective approach to HIV prevention. The series' call to action argued that countries and communities need to use all the tools of prevention in order to make significant inroads in reducing new HIV infections (Piot, 2008).

"Every time a magic-bullet solution has been proposed for AIDS, it has been found wanting... From the point of view of those who implement programmes and make policy, no one-dimensional AIDS solution has ever become available. 'Combination prevention' is as necessary as 'combination treatment' when it comes to stopping the epidemic," the authors said in **The Lancet** article.

**But what is combination prevention?** It is choosing the right mix of behavioural, biomedical and structural HIV prevention actions and tactics to suit your actual epidemic and the needs of those most at risk, just as you choose the right combination and proportions of drugs for anti-retroviral treatment.

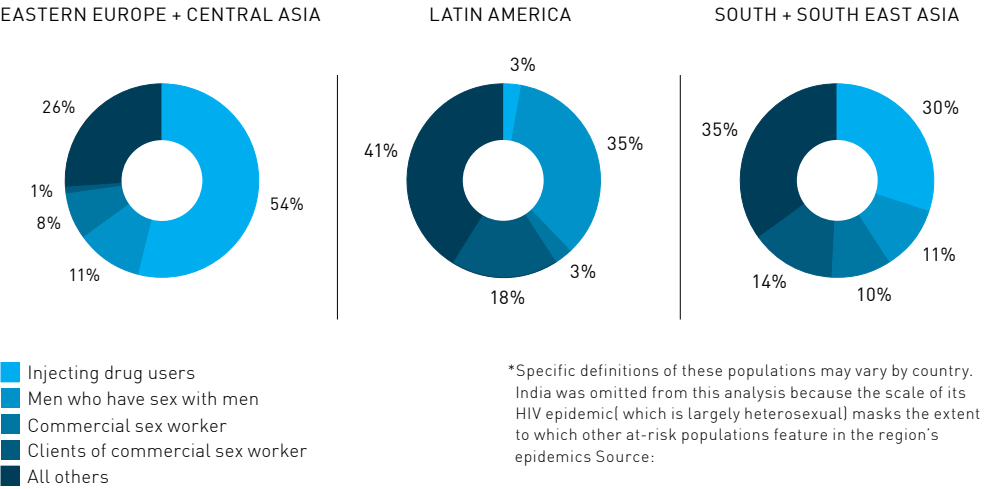
The combination prevention strategy highlights the synergies that can come when these programmes are coordinated and reinforce each other. There is no single "magic bullet" for HIV prevention, but by making the right choices every country's HIV prevention efforts can have the power, relevance and scale required to stop new HIV infections.

The history of the epidemic shows that both countries and communities have succeeded in preventing new infections through combined prevention strategies that have acted simultaneously on a number of levels. Bringing about changed sexual or drug injecting behaviour is not something that can be attributed to one service, approach, or subset of the population. Its inputs have to include community mobilization, political and state involvement, and resources. Combination prevention strategies recognize that effective HIV responses address

both immediate risk contexts and underlying social dynamics that make people vulnerable to HIV. Education, ready access to services and commodities, and social change strategies are all necessary elements of effective HIV prevention programmes. It is very hard to set the formula in advance, but when we see it, we can recognize the synergies between different elements—creation of political space that puts AIDS on the table as an issue; compassionate and inclusive responses triumphing over stigma; rising awareness instead of studied ignorance; and a willingness to upset existing power relations between women and men or young and old.

Most countries' HIV prevention efforts have recognized the need to address the needs of various populations and the diverse individuals within these populations. Figure 4 represents the most recent look at infections among different populations in Eastern Europe and Central Asia; Latin America; and South and South East Asia. The chart represents the aggregation of prevalence data from all countries. When HIV prevention programmes engage these populations, the concern is to find ways of reducing HIV risks and vulnerability in the context of sexual and drug using practices that vary greatly between different social and economic settings.

**FIGURE 4. ESTIMATED PROPORTIONS OF HIV INFECTIONS IN DIFFERENT POPULATION GROUPS\* BY REGION, 2007**



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However, experts agree that many countries are simply not adequately addressing sex workers, injecting drug users, or men having sex with men. Often a political reluctance to deal with these marginalized groups means that they are not adequately reached or prevention programmes are not appropriate to their life situations.

Similarly, HIV prevention programmes for women must identify where and how women are facing HIV risks and the aspects of vulnerability that may underlie those risks, and decide what to do about them. These analyses must be done by region, by country, and optimally, by district.

For many years, there has been a concern about the 'feminization' of AIDS, especially in sub-Saharan Africa, where the epidemic has risen faster and proved more persistent among women; so much so that today roughly six out of every ten people infected are women. Outside the region, though, men account for roughly three-quarters of those infected. Globally, of

FIGURE 5. GLOBAL GENDER DISTRIBUTION OF PEOPLE LIVING WITH HIV

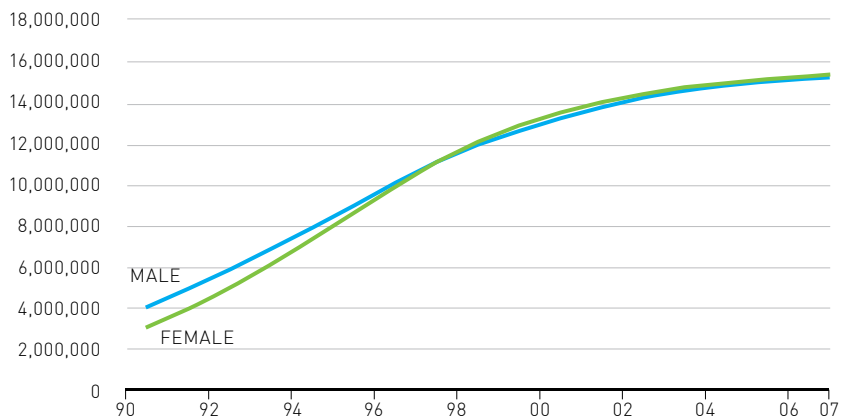


FIGURE 6. GENDER DISTRIBUTION OF HIV IN SUB-SAHARAN AFRICA

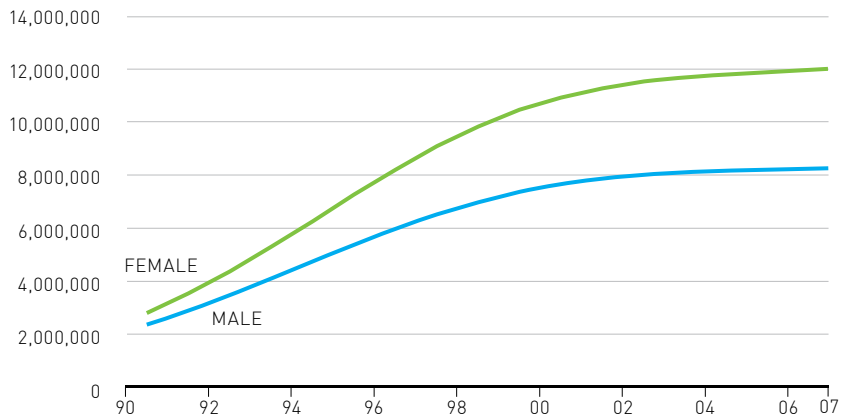
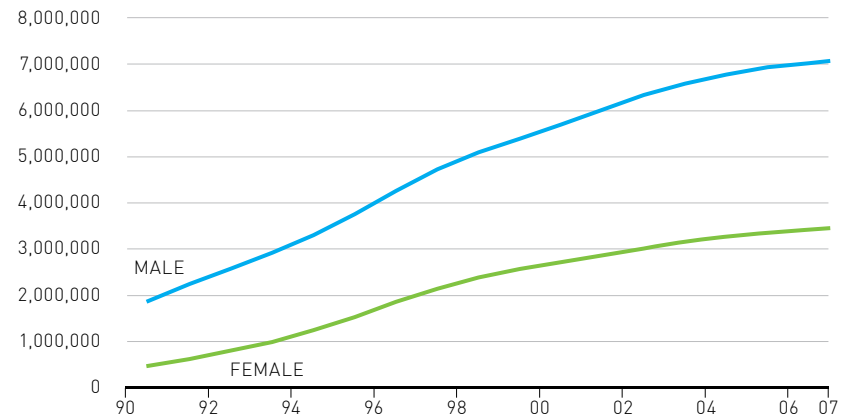


FIGURE 7. GENDER DISTRIBUTION OF HIV OUTSIDE SUB-SAHARAN AFRICA



Source: UNAIDS, 2008

the estimated 33 million people living with HIV at the end of 2007, half are women, half men. That 50-50 split has stayed roughly the same over the past decade (UNAIDS, 2008). These numbers suggest that a much closer look at the most local levels possible is required to understand better what is driving local epidemics.

In the maturing but concentrated epidemics in Asia, programmes should respond effectively to the rising rate of HIV infections among women in marriage. In southern Africa, programmes should look more closely at issues such as young women's sexual debut and biological vulnerability, multiple sexual partnerships including concurrent relationships, the role of gender-based violence, and cross-generational sex.

In southern Africa, an ongoing study in eight countries has been extensively researching the kinds of motivations for having multiple partners among young and middle-aged men and women. With the results of these studies, countries will be able to promote campaigns that include dialogues and reflection to address multiple partnerships. In particular, there is a concern to address multiple sexual partnerships including concurrent relationships, especially where it is the social norm for both men and women to have an ongoing relationship with more than one intimate partner (Morris and Kretzschmar, 1997).

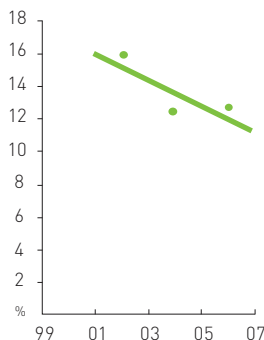
In the minds of many, HIV risk has been associated with casual sex or buying sex, and the intimacy of long term partnerships has conferred an air of security, completely at odds with the reality that an overlapping network of sexual partners facilitates the spread of HIV.

In Uganda, a national conversation about behaviour did open up in broad ways in the 1980s and into the 1990s, and many believe this candour played an important role in reducing the number of new infections. In a number of other heavily-affected countries, such as Rwanda and Zimbabwe, changes in sexual behaviour have been followed by declines in the number of new HIV infections. The behaviours included people waiting longer to become sexually active, having fewer multiple partners, and increased condom usage among people with multiple partners.

In Namibia, the combination approach to HIV prevention seems to have produced results: levels of knowledge about HIV and condom use have increased and rates of sex before the age of 15 and sex with more than one partner in the last 12 months have decreased among young people. Campaigns were undertaken to discourage men and women from having risky sex. Condoms were promoted, and more than 25 million male condoms were distributed for free. HIV testing was encouraged. Hospitals treated sexually transmitted diseases. Sex workers and members of the uniformed forces were specially reached out to. Adult HIV prevalence appears to have stabilized, and HIV prevalence among young women attending antenatal clinics that have been consistently included in surveillance declined from a median of 15.8% in 2002 to 12.5% in 2006 (Ministry of Health, Namibia, 2006).

The new frontiers of combination HIV prevention are starting to break down the 'compartmentalization' of HIV responses into treatment and prevention, including the role of treatment itself in achieving prevention goals. Trials are also under way of pre-exposure prophylaxis—administering antiretroviral medicines before unsafe sex may happen to prevent HIV infection. As well, for those already living with HIV, studies are ongoing to determine if effective antiretroviral treatment, which suppresses viral load to undetectable levels, also eliminates the risks of transmission.

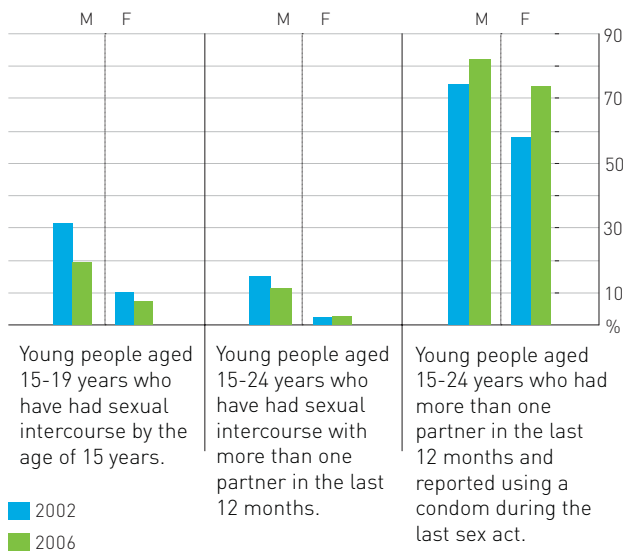
**FIGURE 8. HIV PREVALENCE AMONG YOUNG WOMEN (AGED 15-24 YEARS)\***



\*Attending antenatal clinics over time in Namibia.

Source: Gouws et al. AIDS 2008 paper in press

**FIGURE 9. CHANGES OVER TIME IN THREE SEXUAL BEHAVIOURAL INDICATORS\***



\*Measured among young men and women in Demographic and Health Surveys in Namibia in 2000 and 2006.

Source: Gouws et al. AIDS 2008 paper in press

There are still many unresolved questions about how antiretroviral therapies can best contribute to HIV prevention. Whatever their best use may be in different situations what is beyond doubt is that effective AIDS responses still require the active involvement of people living with HIV.

### 2009—LOOKING TO THE YEAR AHEAD

IN 2009, THERE WILL BE NEW OPPORTUNITIES TO CHANGE THE PACE OF THE AIDS EPIDEMIC. WHILE ONE GLOBAL GOAL IS TO PUT MORE PEOPLE ON TREATMENT, THE WORLD CAN ALSO AIM TO SEE FEWER PEOPLE INFECTED—BY BUILDING ON THE MANTRA OF 'KNOWING YOUR EPIDEMIC'.

THROUGH UNDERSTANDING HOW THE MOST RECENT HIV INFECTIONS WERE TRANSMITTED AND UNDERSTANDING THE REASONS WHY THEY OCCURRED, COUNTRIES CAN CHOOSE AN EFFECTIVE COMBINATION PREVENTION APPROACH.

NOT ONLY WILL THIS APPROACH HELP PREVENT THE NEXT 1000 INFECTIONS, BUT IT WILL ALSO MAKE MONEY FOR AIDS WORK MORE EFFECTIVELY AND HELP PUT FORWARD A LONG TERM AND SUSTAINABLE AIDS RESPONSE.

## Estimate Ranges

New HIV infections: 2007 – 2.7 million [2.2–3.2 million], 2001 – 3 million [2.6–3.5 million]

Children newly infected with HIV: 2007 – 370 000 [330 000–410 000], 2000 – 450 000 [420 000–510 000]

Number of people who died from HIV-related illnesses: 2007 – 2 million [1.8–2.3 million], 2005 – 2.2 million [1.8–2.3 million]

Source: (UNAIDS, 2008).

## References

A.Adebajo, et al. HIV and sexually transmitted infections among men who have sex with men (MSM) in Nigeria. : AIDS 2008- XVII International AIDS Conference: Abstract no. MOPE0411

A.Holman, et al. HIV risk factors and injections drug use among men who have sex with men in Zanzibar (Unguja), Tanzania. Oral Abstract session: AIDS 2008 – XVII International AIDS Conference: Abstract no. THAC0206

CDC. Pneumocystis pneumonia — Los Angeles;30:250–2 MMWR 30.

Commission on AIDS in Asia (2008). Redefining AIDS in Asia- crafting an effective response Oxford University Press, New Delhi

E.Umar, et al. A cross-sectional evaluation of the HIV prevalence and HIV-related risk factors of men who have sex with men (MSM) in Malawi. : AIDS 2008- XVII International AIDS Conference: Abstract no. MOPE0412

Gouws E et al. (2006). Short term estimates of adult HIV incidence by mode of transmission: Kenya and Thailand as examples. **Sexually Transmitted Infections**, 82( suppl.3):ii51-iii5.

Gouws E, Stanecki K, Lyerla R, Ghys P. The epidemiology of HIV infection among young people aged 15 – 24 years in southern Africa. AIDS 2008, paper in press.

Government of Namibia, 2007. United Nations General Assembly Special Session Country Report, Reporting period April 2006- March 2007

Government of Uganda., UNAIDS., Uganda AIDS Commission. Estimation of sources of incident HIV infections. A review of the sources of incident HIV infections in Uganda. Kampala, Uganda: Government of Uganda, UNAIDS, Uganda AIDS Commission, 2008.

Mathers et al (2008). Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. **Lancet** 2008, 372:1733-45

Ministry of Health Namibia 2006. Ministry of Health and Social Services. Report of the 2006 National HIV Sentinel Survey. Windhoek, Republic of Namibia: Ministry of Health and Social Services, 2007.

Morris M, Kretzschmar M (1997). Concurrent partnerships and the spread of HIV. AIDS, 11(5):641\_648.

Thai Working Group on HIV/AIDS Projection and the Analysis and Advocacy (A<sup>2</sup>) Project in Thailand. The Asian Epidemic Model (AEM) Projections for HIV/AIDS in Thailand: 2005-2025, 2008.

Piot et al, (2008) Coming to terms with complexity: a call to action for HIV prevention, **Lancet**, 2008; 372:845-859

UNAIDS (2008). Report on the Global AIDS epidemic, Geneva

WHO (2008). Towards universal access. Scaling up priority HIV/AIDS interventions in the health sector, Geneva.



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