

## Summary of 2009 AIDS Epidemic Update, by UNAIDS/WHO

UNAIDS, as they do annually just before World AIDS Day December 1, has just released its latest epidemiology report on the global HIV/AIDS pandemic. The 100-page report can be accessed at [www.unaids.org](http://www.unaids.org). Some highlights are copied below.

### Summary Statistics

#### **Number of people living with HIV in 2008**

Total 33.4 million [31.1 million–35.8 million]  
Adults 31.3 million [29.2 million–33.7 million]  
Women 15.7 million [14.2 million–17.2 million]  
Children under 15 years 2.1 million [1.2 million–2.9 million]

#### **People newly infected with HIV in 2008**

Total 2.7 million [2.4 million–3.0 million]  
Adults 2.3 million [2.0 million–2.5 million]  
Children under 15 years 430 000 [240 000–610 000]

#### **AIDS-related deaths in 2008**

Total 2.0 million [1.7 million–2.4 million]  
Adults 1.7 million [1.4 million–2.1 million]  
Children under 15 years 280 000 [150 000–410 000]

The ranges around the estimates in this table define the boundaries within which the actual numbers lie, based on the best available information.

### Introduction

The number of people living with HIV worldwide continued to grow in 2008, reaching an estimated 33.4 million [31.1 million–35.8 million]. The total number of people living with the virus in 2008 was more than 20% higher than the number in 2000, and the prevalence was roughly threefold higher than in 1990.

The continuing rise in the population of people living with HIV reflects the combined effects of continued high rates of new HIV infections and the beneficial impact of antiretroviral therapy. As of December 2008, approximately 4 million people in low- and middle-income countries were receiving antiretroviral therapy—a 10-fold increase over five years (World Health Organization, United Nations Children's Fund, UNAIDS, 2009). In 2008, an estimated 2.7 million [2.4 million–3.0 million] new HIV infections occurred. It is estimated that 2 million [1.7 million–2.4 million] deaths due to AIDS-related illnesses occurred worldwide in 2008.

The latest epidemiological data indicate that globally the spread of HIV appears to have peaked in 1996, when 3.5 million [3.2 million–3.8 million] new HIV infections occurred. In 2008, the estimated number of new HIV infections was approximately 30% lower than at the epidemic's peak 12 years earlier.

Consistent with the long interval between HIV seroconversion and symptomatic disease, annual HIV-related mortality appears to have peaked in 2004, when 2.2 million [1.9 million–2.6 million] deaths occurred. The estimated number of AIDS-related deaths in 2008 is roughly 10% lower than in 2004.

An estimated 430 000 [240 000–610 000] new HIV infections occurred among children under the age of 15 in 2008. Most of these new infections are believed to stem from transmission in utero, during delivery or post-partum as a result of breastfeeding. The number of children newly infected with HIV in 2008 was roughly 18% lower than in 2001.

This report summarizes the latest data on the epidemiology of HIV. The epidemiological estimates in this report reflect continued improvement in national HIV surveillance systems and estimation methodology (see the box 'Deriving HIV estimates'). In 2007–2008, national household surveys with anonymous HIV testing components were conducted in 11 countries, including nine in sub-Saharan Africa. Improvements in HIV surveillance and information systems not only provide a clearer, more reliable picture of the epidemic at the global, regional and country levels but are also helping national governments and other stakeholders to tailor AIDS responses in order to maximize the impact on public health.

The epidemic appears to have stabilized in most regions, although prevalence continues to increase in Eastern Europe and Central Asia and in other parts of Asia due to a high rate of new HIV infections. Sub-Saharan Africa remains the most heavily affected region, accounting for 71% of all new HIV infections in 2008. The resurgence of the epidemic among men who have sex with men in high-income countries is increasingly well-documented. Differences are apparent in all regions, with some national epidemics continuing to expand even as the overall regional HIV incidence stabilizes.

## Key themes of the 2009 *AIDS epidemic update*

This report is divided into separate chapters that summarize epidemiological trends in individual regions. While regional differences remain, several themes are discernible:

*AIDS continues to be a major global health priority.* Although important progress has been achieved in preventing new HIV infections and in lowering the annual number of AIDS related deaths, the number of people living with HIV continues to increase. AIDS-related illnesses remain one of the leading causes of death globally and are projected to continue as a significant global cause of premature mortality in the coming decades (World Health Organization, 2008). Although AIDS is no longer a new syndrome, global solidarity in the AIDS response will remain a necessity.

*There is geographic variation between and within countries and regions.* Although this report focuses considerable attention on national trends, there are often large variations in HIV prevalence and epidemiological patterns within countries. The substantial diversity of national epidemics underscores not only the need to tailor prevention strategies to local needs but also the importance of decentralizing AIDS responses.

*The epidemic is evolving.* Epidemic patterns can change over time. As the regional profiles in this report highlight, national epidemics throughout the world are experiencing important transitions. In Eastern Europe and Central Asia, epidemics that were once characterized primarily by transmission among injecting drug users are now increasingly characterized by significant sexual transmission, while in parts of Asia epidemics are becoming increasingly characterized by significant transmission among heterosexual couples.

*There is evidence of successes in HIV prevention.* There is growing evidence of HIV prevention successes in diverse settings. In five countries where two recent national household surveys were conducted, HIV incidence is on the decline, with the drop in new infections being statistically significant in two countries (Dominican Republic and United Republic of Tanzania) and statistically significant among women in a third (Zambia) (Hallett et al., in press). As previously discussed, the annual number of new HIV infections globally has declined, and HIV prevalence among young people has fallen in many countries (UNAIDS, 2008). Globally, coverage for services to prevent mother-to-child HIV transmission rose from 10% in 2004 to 45% in 2008 (World Health Organization, United Nations Children's Fund, UNAIDS, 2009), and the drop in new HIV infections among children in 2008 suggests that these efforts are saving lives (see the box 'The impact of antiretroviral prophylaxis to prevent mother-to-child transmission of HIV').

*Improved access to treatment is having an impact.* Antiretroviral therapy coverage rose from 7% in 2003 to 42% in 2008, with especially high coverage achieved in eastern and southern Africa (48%) (World Health Organization, United Nations Children's Fund, UNAIDS, 2009). While the rapid expansion of access to antiretroviral therapy is helping to lower AIDS-related death rates in multiple countries and regions, it is also contributing to increases in HIV prevalence (see the box 'Impact of increased access to treatment on epidemiological trends').

*There is increased evidence of risk among key populations.* While high HIV prevalence has long been documented among sex workers in diverse countries worldwide, evidence was extremely limited regarding the contribution of men who have sex with men and injecting drug users to epidemics in sub-Saharan Africa and parts of Asia. In recent years, studies have documented elevated levels of infection in these populations in nearly all regions. In all settings and for diverse types of epidemics, it is clear that programmes to prevent new infections among these key populations must constitute an important part of national AIDS responses.

## What do the most recent data tell us?

UNAIDS recommends that countries ground their AIDS strategies in an understanding of their individual epidemics and their national responses. The data presented in this report indicate that this is often failing to occur. The failure to match national AIDS strategies to documented national needs has been vividly illustrated by recent modes of transmission studies and HIV prevention syntheses conducted in a number of countries. The common failure to prioritize focused HIV prevention programmes for key populations is especially apparent. Even though injecting drug users, men who have sex with men, sex workers, prisoners and mobile workers are at higher risk of HIV infection, the level of resources directed towards focused prevention programmes for these groups is typically quite low, even in concentrated epidemics (UNAIDS, 2008).

Gaps are also evident in basic prevention approaches in hyperendemic settings. As the chapter on sub-Saharan Africa explains, even though the largest share of new infections in many African countries occurs among older heterosexual couples, relatively few prevention programmes have specifically focused on older adults. Although serodiscordant couples account for a substantial percentage of new infections in some African countries, HIV testing and counselling programmes are seldom geared specifically for serodiscordant couples. Many programmes focused on young people fail to address some of the key determinants of vulnerability, such as the high prevalence of intergenerational partnerships in many countries.

Another important programmatic gap evident in recent HIV prevention syntheses is the typical shortage of programmes specifically designed for people living with HIV. UNAIDS recommends that urgent efforts to involve people living with HIV in the planning, implementation and monitoring of prevention efforts be grounded in human rights principles and be supported by strong legal protection.

## UNAIDS Outcome Framework 2009–2011: nine priority areas:

We can reduce sexual transmission of HIV.

We can prevent mothers from dying and babies from becoming infected with HIV.

We can ensure that people living with HIV receive treatment.

We can prevent people living with HIV from dying of tuberculosis.

We can protect drug users from becoming infected with HIV.

We can remove punitive laws, policies, practices, stigma and discrimination that block effective responses to AIDS.

We can stop violence against women and girls.

We can empower young people to protect themselves from HIV.  
We can enhance social protection for people affected by HIV.