

**BRINGING HIV PREVENTION TO SCALE:
AN URGENT GLOBAL PRIORITY**

ABOUT THE GLOBAL HIV PREVENTION WORKING GROUP

The Global HIV Prevention Working Group is a panel of over 50 leading public health experts, clinicians, biomedical and behavioral researchers, advocates and people affected by HIV/AIDS, convened by the Bill & Melinda Gates Foundation and the Henry J. Kaiser Family Foundation. The Working Group seeks to inform global policy-making, program planning, and donor decisions on HIV prevention, and to advocate for a comprehensive response to HIV/AIDS that integrates prevention, treatment, and care. More information and Working Group publications are available at www.GlobalHIVPrevention.org.

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EXECUTIVE SUMMARY

We should be winning in HIV prevention. There are effective means to prevent every mode of transmission; political commitment on HIV has never been stronger; and financing for HIV programs in low- and middle-income countries increased sixfold between 2001 and 2006. However, while attention to the epidemic, particularly for treatment access, has increased in recent years, the effort to reduce HIV incidence is faltering. For every patient who initiated antiretroviral therapy in 2006, six other individuals became infected with HIV (1, 2). If current trends continue, it is projected that 60 million more HIV infections will occur by 2015, and the annual number of new HIV infections will increase by 20% or more by 2012. Unless the number of new infections is sharply reduced, global efforts to make AIDS treatment widely available will become increasingly difficult, and millions more people may die as a result of preventable HIV infections. The dramatic rise in antiretroviral coverage, with global access increasing from 8% to 28% between 2003 and 2006, illustrates what the world can accomplish with strong global commitment, increased financing, and collective action. To date, a similar confluence of forces has not been applied to HIV prevention.

This challenge, pivotal to the future health and well-being of millions, is the focus of this report by the Global HIV Prevention Working Group. It offers a new analysis that examines the future course of the epidemic with and without a greatly scaled-up prevention response; surveys the latest evidence on HIV prevention access; reviews the experience in countries where such barriers have been overcome; and closes with a series of urgent recommendations to bring the promise of HIV prevention to the countries and communities that need it the most. As the report shows, even in the midst of global failure to make optimal use of available prevention strategies, a number of countries, including some of the world's poorest, have made tangible progress in reducing the number of new HIV infections through implementation of comprehensive HIV prevention efforts. Strong evidence and replicable models exist for HIV prevention scale-up, underscoring the need to move beyond localized pilot projects to broad-based, comprehensive national programs. If comprehensive HIV prevention were brought to scale, half of the infections projected to occur by 2015 could be averted. We believe that the future need not be a legacy of the past.

A MISSED OPPORTUNITY

We could slow and even begin to reverse the trajectory of the global HIV epidemic by using the prevention tools currently at our disposal. Strong evidence of effectiveness exists for a broad array of HIV prevention strategies, including approaches to prevent every mode of HIV transmission (3). By delivering comprehensive HIV prevention to those who need it — the right interventions focused on the right people at the right scale — half of all infections projected to occur between now and 2015 could be averted. Annual HIV incidence would be nearly two-thirds lower in 2015 than it would be if the current level of effort is maintained,

resulting in 4 million fewer infections each year by the middle of the next decade, according to a new analysis by the Futures Institute undertaken at the request of the Global HIV Prevention Working Group (4). This degree of success would likely disable the epidemic, causing it to move into a long-term decline.

To realize the promise of available HIV prevention tools, they must be brought to scale. This means that the appropriate mix of evidence-based HIV prevention strategies must achieve sufficient coverage, intensity, and duration to have optimal public health impact.

ACCESS TO HIV PREVENTION: A GLOBAL FAILURE

Despite the extraordinary potential of available prevention strategies, most people at risk of HIV infection have little or no access to basic prevention tools (1, 2, 6, 7). Although necessary coverage levels vary depending on national circumstances, current coverage levels for essential prevention strategies are woefully inadequate for any national epidemic.

- **CONDOMS.** Only 9% of risky sex acts worldwide are undertaken while using a condom, and the global supply of condoms is millions short of what is needed (1).
- **HIV TESTING.** In the most heavily affected countries of sub-Saharan Africa, only 12% of men and 10% of women know their HIV status (1).
- **TREATMENT FOR SEXUALLY TRANSMITTED INFECTIONS.** It is estimated that fewer than 20% of people with a sexually transmitted infection are able to obtain treatment, even though untreated STIs increase the risk of HIV acquisition and transmission by several orders of magnitude (2).
- **PREVENTION OF MOTHER-TO-CHILD TRANSMISSION.** Years after clinical trials demonstrated that a brief, inexpensive antiretroviral regimen could reduce the risk of mother-to-child HIV transmission by 50% (5), only 11% of HIV-infected pregnant women in low- and middle-income countries receive antiretroviral prophylaxis (1).
- **PREVENTION FOR VULNERABLE POPULATIONS.** Prevention services reach only 9% of men who have sex with men (1), 8% of injection drug users (1), and under 20% of sex workers (6).
- **PREVENTION IN HEALTH CARE SETTINGS.** An estimated 6 million units of unscreened blood are transfused yearly in developing countries, and 40% of injections administered in health care settings are unsafe (7).

FACTORS IMPEDING SCALE-UP OF HIV PREVENTION

Numerous factors have slowed global efforts to bring HIV prevention to scale.

- **INADEQUATE FINANCING.** While financing for HIV has increased dramatically in recent years, available funding is only slightly more than half of amounts needed to support a comprehensive, scaled-up response (6). In Asia, where the number of HIV infections could double in the next five years to more than 20 million, current spending on HIV/AIDS represents roughly 10% of the amounts needed to mount a comprehensive response (8).
- **MISALLOCATION OF RESOURCES.** In part due to the weakness of HIV information systems (1), many countries do not target limited funds where they would have the greatest impact (9). Misallocation of limited resources by donors and affected countries also often occurs as a result of ideological, non-scientific restrictions imposed by donors on how HIV prevention assistance may be used (10).

- **CAPACITY LIMITATIONS.** Due to inadequate human capacity, countries often have difficulty programming substantial infusions of new funding (1, 11).
- **SERVICE FRAGMENTATION.** HIV prevention has frequently not been integrated into schools, workplaces, and other institutions, and HIV efforts are insufficiently linked with other health-related service systems, such as TB or sexual and reproductive health (1).
- **STIGMA AND DISCRIMINATION.** The stigma associated with HIV and with membership in a vulnerable group deters many at-risk people from seeking HIV prevention services or learning their HIV status (12) and also discourages the kind of political leadership required to implement a robust and evidence-based HIV prevention effort.

THE FEASIBILITY OF SCALING-UP HIV PREVENTION

Experience teaches, however, that such impediments can be overcome. Numerous countries in multiple regions have demonstrated the feasibility of implementing comprehensive HIV prevention efforts. An early response by Senegal prevented a major epidemic from emerging, while the rapid growth of HIV infection prompted Brazil, Thailand, and Uganda to implement scaled-up measures that reversed their respective epidemics. Prevention efforts in these countries share a number of critical characteristics — adequate and sustained financing, strong political support, evidence-informed action, use of mass media and other channels to raise AIDS awareness, promotion of condoms and STI control, anti-stigma measures, and involvement of affected communities and diverse sectors (13).

In recent years, countries throughout the world have experienced success in expanding access to life-saving HIV prevention:

- **CAMBODIA.** National HIV prevalence was cut in half in a single decade following implementation of comprehensive HIV prevention measures for sex workers and their clients (14).
- **HAITI.** The poorest country in the Western Hemisphere, Haiti has maximized its substantial external assistance to achieve HIV prevention coverage well above global averages, cutting HIV infection levels among pregnant women nearly in half between 1998 and 2004 (15).
- **INDIA.** The Avahan India AIDS Initiative has established sex-worker programs in 76 districts and 550 towns, distributing 5.6 million condoms each month and increasing the percentage of sex workers who visit a sexually transmitted disease clinic from 26% to 90% in little over a year (16).
- **IRAN.** A country where the epidemic is primarily driven by injection drug use, Iran has dramatically expanded access to HIV prevention, treatment, and care services for drug users. At the end of 2006, HIV clinics were operating in one-third of all prisons in Iran, and methadone substitution therapy was reaching 55% of all prisoners in need. (1)

- **KENYA.** National HIV prevalence declined from 10% in the late 1990s to 6.1% in 2005. Strengthened national HIV prevention efforts have led to a near doubling in condom use by young women as well as a rate of prevention of mother-to-child transmission that is twice as high as the average in Africa (1).
- **ZAMBIA.** Implementation of an intensified HIV prevention strategy resulted in above-average coverage for essential prevention services, a 50% increase in condom sales between 2001 and 2003, and delayed age of first sex for young people (17).
- **ZIMBABWE.** Between 2000 and 2004, the number of clients seen at voluntary counseling and testing sites in Zimbabwe increased more than sixfold, and the number of condoms distributed rose 60%. HIV prevalence and incidence have declined since the mid-1990s (18).

SCALING-UP HIV PREVENTION: A GLOBAL PROGRAM OF ACTION

With an array of proven tools at our disposal and the successes recorded by a growing number of countries, it is clear that we can begin to reverse the global epidemic by bringing HIV prevention to scale. The Global HIV Prevention Working Group recommends the following actions to support and accelerate the scaling-up of HIV prevention efforts:

- **RECOMMENDATIONS FOR NATIONAL GOVERNMENTS.** Based on a thorough and up-to-date understanding of their national epidemic, governments should establish an inclusive national process to develop, monitor, and update a national strategic HIV plan that simultaneously brings evidence-based HIV prevention and treatment to scale. Ambitious HIV prevention coverage and outcome targets should be established, and regular multi-stakeholder reviews should occur, leading where indicated to the revision and refinement of national strategies.
- **RECOMMENDATIONS FOR DONORS.** Funding for the AIDS response should double within the next three years to support a simultaneous scaling-up of HIV prevention and treatment (6). International donors should take primary responsibility for closing the HIV prevention resource gap, although developing countries (especially middle-income countries) should also significantly increase domestic outlays for HIV prevention. Donors should bring their priorities into alignment with national strategies, make timely data reports to national monitoring and evaluation authorities, and avoid funding restrictions that may inhibit access to scientifically validated HIV prevention tools.
- **RECOMMENDATIONS FOR MULTILATERAL AND TECHNICAL AGENCIES.** Technical support for national planning should be strengthened and better coordinated. Multilateral and technical agencies should collaborate in providing countries with an independent assessment of the degree to which national strategies are based on epidemiology and evidence of what works, as well as the degree to which national plans reflect an appropriate balance and integration of HIV prevention, treatment, care, and support. Technical agencies

should also enhance their support to countries to assist them in participating in research and development of new HIV prevention tools and to help them ensure rapid introduction of new prevention strategies once they have been proven effective.

- **RECOMMENDATIONS FOR HEALTH CARE PROVIDERS.** HIV services should be integrated into sites dealing with tuberculosis, STIs, and sexual and reproductive health. All health care settings should train workers in proper infection control and in the delivery of HIV prevention messages to patients, and health care workplaces should maintain a readily available, uninterrupted supply of technologies and supplies needed to prevent HIV transmission in health care settings.
- **RECOMMENDATIONS FOR RESEARCH.** HIV prevention scale-up will help ensure readiness of countries to rapidly introduce new prevention approaches as they emerge. In the meantime, national governments and communities should provide strong support to research efforts to develop new prevention tools and to improve on those that already exist. National governments and research agencies should prioritize social research to improve understanding of factors that increase vulnerability, identify and characterize programs and specific policy actions to address such factors, and inform the development and adaptation of national HIV prevention strategies. Operational research should focus on optimal, cost-effective strategies to accelerate scale-up, ensure sustainability, and maximize the impact of HIV prevention strategies.
- **RECOMMENDATIONS FOR CIVIL SOCIETY.** Donors should prioritize increasing civil society's capacity to participate as full partners in HIV prevention efforts. With such support, civil society should monitor national progress in bringing HIV prevention to scale, identifying obstacles to scale-up that need to be addressed. Civil society should forcefully advocate for a comprehensive response to HIV that moves toward universal access to HIV prevention, treatment, care, and support.

REFERENCES

1. UNICEF, WHO, UNAIDS (2007). *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector: Progress Report, April 2007.*
2. UNAIDS (2006). *AIDS epidemic update.*
3. Wegbreit J et al. (2006). Effectiveness of HIV Prevention Strategies in Resource-Poor Countries. *AIDS* 20:1217-1235.
4. Futures Institute (2007), data-based modeling undertaken at request of Global HIV Prevention Working Group.
5. Guay L et al. (1999). Intrapartum and neonatal single-dose nevirapine compared with zidovudine for prevention of mother-to-child transmission of HIV-1 in Kampala, Uganda: HIVNET 012 randomized trial, *Lancet*;354:795-802.
6. United Nations Secretary-General Ban Ki-Moon (2007). *Declaration of Commitment on HIV/AIDS and Political Declaration on HIV/AIDS: focus on progress over the past 12 months.* United Nations General Assembly, 61st Session, A/61/816.
7. WHO (2005). *Blood safety and donation: a global view.* Accessed 2 April 2007 at www.who.int/mediacentre/factsheets/fs279/en/index.html.
8. AP/ABC (2007). *Number of HIV-Positive People in Asia Could Double in Five Years Without More Funding, Improved Government Response, Commission Says.* Summarized in Henry J Kaiser Family Foundation Daily HIV/AIDS Report, accessed 2 April 2007 at www.kaisernetwork.com.

org/daily_reports/rep_index.cfm?DR_ID=43980.

9. UNAIDS (2004). *National Spending for HIV/AIDS*.
10. Government Accountability Office (2006). *Global Health: Spending Requirement Presents Challenges for Allocating Prevention Funding Under the President's Emergency Plan for AIDS Relief*. GAO No. GAO-06-1089T.
11. WHO (2006). *Taking stock: Health worker shortages and the response to AIDS*.
12. Rankin WW et al. (2005). The Stigma of Being HIV-Positive in Africa. *PloS Med* 2:8 e247, Doi: 10.1371/journal.pmed.0020247.
13. UNAIDS (2001). *HIV Prevention Needs and Successes: A Tale of Three Countries – An Update on HIV Prevention Success in Senegal, Thailand and Uganda*.
14. National AIDS Authority of Cambodia (2005). *United Nations General Assembly Special Session on HIV/AIDS: Monitoring the Declaration of Commitment, January 2004-December 2005*.
15. Haitian Children's Institute (2006). *UNGASS Report – Haiti, 2005*.
16. Steen R et al. (2006). Pursuing scale and quality in STI interventions with sex workers: initial results from Avahan India AIDS Initiative. *Sex Transm Infect* 82:381-385.
17. National HIV/AIDS/STI/TB Council (2006). *Follow-up to the Declaration of Commitment on HIV/AIDS (UNGASS): 2005 Zambia Country Report*.
18. UNAIDS (2005). *Evidence for HIV decline in Zimbabwe: a comprehensive review of the epidemiological data*.