HIV/AIDS Prevention among Youth: What Works?

Young people are at the heart of the HIV/AIDS pandemic. Not only are they disproportionately represented in terms of new infections, but they are also key to overcoming the disease. Effective HIV prevention efforts that focus on youth are crucial to reversing the pandemic. The World Bank is one of the largest official financiers of HIV/AIDS programs in the world, with over $2.7 billion committed for HIV/AIDS prevention, care, support and treatment since 1988. A recent review of Bank projects related to HIV/AIDS (1999–2004) reveals that over 40% include specific youth components, and virtually all include youth as a target group. This note summarizes the growing body of evidence of what works to prevent HIV/AIDS among youth in developing countries.
Why Invest in Youth to Prevent HIV?

Youth are disproportionately infected and affected by HIV/AIDS. The numbers speak for themselves: every day 5,000 to 6,000 young people 15–24 contract HIV. This corresponds to roughly half of all new adult infections, although youth represent less than 25% of the world population. An estimated 12 million, or over one quarter of all people living with HIV, are 15–24 years old, and two thirds of these are in Sub-Saharan Africa (1). In Eastern Europe and Central Asia, more than 80% of those living with HIV are under the age of 30 (3). In Latin America, the distribution of AIDS cases indicates that the epidemic is shifting towards younger populations (4). With youth at the heart of the pandemic, HIV prevention must focus on young people.

Youth are risk takers. They are more likely to heavily discount the future over the present, making decisions without adequately considering the consequences. This is particularly true with respect to sexual intercourse; fewer than half of all sexually active youth report using condoms, even where prevalence is high (figure 1) (5). Adolescents are at special risk, since they are more likely to engage in high-risk sex and even less likely to use condoms. In Sub-Saharan Africa, the percentage of male 15–19 year olds reporting condom use at their last sexual intercourse with a non-marital partner in a handful of countries is around 20% lower than for 20–24 year olds (1).

Risks are not spread evenly. Increasingly, young women are at higher risk of infection than young men, as the epidemic moves from concentrated sub-populations to a generalized epidemic. In Sub-Saharan Africa, 75% of young people living with HIV are female, and in a handful of countries, as many as six girls are infected for every boy among adolescents (15–19 years) (2). Societal power relations consistently tend to disadvantage young women as evidenced by the high incidence of transactional and coerced sex in many developing countries (1). Globally, up to 20% of girls and young women report forced first sexual encounters, with Sub-Saharan Africa and the Caribbean at the high end, a factor which leads to roughly twice the risk of acquiring HIV (6,7). Marginalized groups such as young men who have sex with men, young commercial sex workers and intravenous drug users are also at heightened risk and too often neglected by prevention programs.

Even when not infected themselves, young people are often adversely affected by the spread of the pandemic. 14 million children and youth have been orphaned by AIDS, leading to an increasing number of child-headed households in Sub-Saharan Africa. Half of all orphans in that region are adolescents, who are more vulnerable to sink into poverty, forfeit their education, suffer from unattended psychological trauma and become infected with HIV themselves (8).

Many young people still do not know how to prevent HIV infection. Although today’s youth are much more informed about HIV/AIDS than any preceding cohort, even in countries with a generalized pandemic, more than 80% of young women still do not have “sufficient understanding” about how to avoid HIV (9). The real challenge, however, consists in changing risky behaviors: even among those who know that condoms prevent HIV, few actually use them (5).

HIV prevention work with youth presents an enormous opportunity as they constitute the largest pool of uninfected of any age group. Also, they are generally more receptive to changing behaviors than adults. For example, in Cambodia, after introducing a 100% condom policy for professional sex workers, the drop in HIV-prevalence among the under 20-year old cohort was double that of the next oldest cohort (10). In Lusaka, Zambia, HIV prevalence among adolescent girls was nearly halved between 1993 and 1998, while there was no significant change in the overall prevalence. This encouraging trend is associated with self-reported behavior change such as consistent condom use, delay of sexual debut and decreased number of partners (11).

Targeting prevention efforts on youth also makes sense from an economic viewpoint. Decreasing the disease burden and mortality in young people preserves their human capital. Moreover, preventing infection is much less costly than treatment—for every life year gained with anti-retroviral therapy, 28 life years could have been gained through prevention (12). Finally, since many young people are parents themselves, preserving their health benefits their children, too.

Focusing on young people means also following up on a commitment already made by the international community. Three of the key indicators for measuring progress in achieving the Millennium Development Goal #6 of combating HIV/AIDS directly target youth: i) reducing HIV prevalence among pregnant women ages 15–24; ii) increasing condom use at last high risk sex; and iii) increasing the share of 15–24 year olds with correct knowledge of HIV/AIDS. The 2001 Declaration of Commitment on HIV/AIDS by the United Nations General Assembly underlines the importance of working with young people in reversing the spread of HIV and AIDS.

Protective Factors and Principles of Successful Interventions

Evidence on what works to prevent HIV among youth has been increasing steadily in recent years. While there is still a need for...
additional research, several crucial protective factors and principles of good practice have emerged from these findings (9):

**Education is a powerful protective factor against HIV infection.** It provides young people with aspirations for their future, increases their expectations of future earnings and increases their ability to process health-related information (5). Data from Demographic and Health surveys shows that educational attainment is positively correlated with condom use, use of counseling and testing, knowledge about HIV and AIDS as well as with lower seroprevalence in several African countries (Figure 2). On average, girls who are better educated are less likely to be infected with HIV. For example, the decline in infection rates in Uganda in the 1990's was greatest among women with post-primary education (13). In Latin America, condom use in casual sex was found to rise with educational level in all countries studied (4).

**Targeting out-of-school youth is a key component in any HIV prevention program, given that they are more likely to be sexually active than those enrolled in educational institutions** (14). Providing incentives to stay in school, return to school or to obtain education equivalency can reinforce the protective factor of school and higher levels of educational attainment. Free primary education policies have increased primary school enrollment substantially in many countries, and the use of conditional cash transfers in Brazil, Mexico, and Turkey, among others have significantly increased enrollment, retention and reduced dropouts.

**Gender considerations are key to effective prevention as inequitable attitudes towards gender increase risk of infection.** Findings from a group education program for young men paired with social marketing in Rio de Janeiro, Brazil, showed that risky sexual behavior is inextricably linked to gender norms that favor male superiority. In the intervention group of the program the positive change in gender norms over one year was significantly associated with increased condom use (15).

**It is important to involve young people in intervention design in order to assure relevance of programs to them.** The success of youth-specific interventions often depends greatly on how the youth relate to their service provider and, in turn, how those providers and institutions succeed in empowering and integrating young people. A community-based study from Nepal confirms that interventions fostering active youth participation throughout planning and implementation show improved youth reproductive health outcomes (16).

### Programs and Services that Work for Youth

There is now a wide consensus about the main settings through which young people can be reached with preventive interventions: schools, peers, health services, mass media and geographically defined communities. There is also a growing research base on the effectiveness of specific youth interventions within these settings. Of particular note is a systematic review of evaluated evidence from developing countries on preventing HIV/AIDS in youth carried out by the UNAIDS Interagency Task Team on Young People (9). Some of the key messages from this review and related research are:

**School-based programs can be effective in improving young people's knowledge of HIV/AIDS and reducing risky behavior.** In a recent review, 16 out of 22 scientifically evaluated school-based interventions in developing countries were successful in reducing the incidence of risky sex among youth (9). Key elements of a successful school-based intervention must be that teachers are sufficiently trained, that they are encouraged to use interactive teaching methods and that they do not hesitate to address sexual matters explicitly (17). Also, starting well-designed reproductive health education even before the onset of sexual activity prevents risky behavior and allows programs to reach adolescents who do not remain in school later on (13). Finally, there is no evidence that sex education increases sexual activity (9).

**Making health and pharmaceutical services more youth-friendly may lead to an increased use of facilities by young people** (9). Many young people lack access to services such as condoms and voluntary counseling and testing (VCT). Often socially excluded or out-of-school youth are reluctant to go to a clinic, so services need to go to them where possible, such as in the workplace, job training programs, social venues, and sports settings (14). A survey of young people in Kenya and Uganda indicated that real and perceived lack of confidentiality was as much a deterrent to using voluntary testing and counseling services as was affordability (20). Sensitizing health staff to young peoples’ needs is critical to make sure they get the service package they need. Rigorous evaluations of youth-friendly health services in developing countries are scarce and show mixed results (9,18). Studies on VCT in the US, however, show that a high percentage of youth adopt safe behavior after testing (21).

**Targeted media and social marketing campaigns have proven successful in improving young people's knowledge about HIV and AIDS.** Programs that use a mix of media show significant outcomes on HIV knowledge and skills as well as on condom use. Higher levels of program exposure increase the likelihood of behavior change and
linking media campaigns to other interventions enhances their effect (9, 11).

Training peers to be positive role models can positively influence young peoples’ behaviors, facilitating access to and creating trust among young people. Peer education and other community-based programs are especially effective in reaching out-of-school youth and other groups particularly vulnerable to infection. The most notable impacts have been in increasing HIV/AIDS awareness and in improving some behavioral indicators such as increased condom use at last sex (e.g. Peru peer promotion program, Nigeria project with youth-serving organizations and peer education program in Cameroon) (18). Most evaluations of peer education programs have shown an even greater impact on the peer educators themselves than on their intended target audience, though both may benefit (19).

Conclusion
The future of the HIV pandemic lies in the hands of young people, and the need to scale up programs targeting this group is clear. The behaviors they adopt now and those they maintain throughout their sexual lives will determine the course of the pandemic for decades to come. The new evidence base for what works in preventing HIV/AIDS in young people can help guide policymakers and practitioners to make better-informed choices in giving young people the attention they warrant and to accelerate action to achieving global goals.

Yet, while the knowledge base regarding successful programs has been steadily growing over the last decade, several large research gaps remain. Surveillance and monitoring data on youth are often unavailable, and rigorous evaluations on youth HIV prevention programs in developing countries remain rare. The few that are available tend to focus only on small-scale programs. Further, they rarely measure biological markers such as HIV prevalence in the target population, but focus instead on behavioral outcome indicators, such as self-reported condom use or decrease in sexual activity. Approaches that deserve particular evaluation attention include youth-friendly clinical services and those linking livelihoods interventions and HIV prevention. Finally, cost-effectiveness and cost-benefit analyses are still scarce for all types of approaches. Further operational research in this direction is crucial to inform policy makers about the merits of choosing or continuing a given intervention.

References and Recommended Reading (in bold)
For more information on World Bank support for global, regional, and national HIV responses: visit www.worldbank.org/aids

(19) FOCUS on Young Adults. 2001. Advancing young adult reproductive health: Actions for the next decade. Washington, DC: FOCUS on Young Adults.