

Current Issues in HIV Prevention

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Introduction

Although global attention to HIV and AIDS remains strong, particularly regarding treatment initiatives, until recently HIV-prevention has garnered scant attention. Treatment alone will not reverse the epidemic, and current prevention efforts have not been successful in halting HIV transmission. Currently, for every two people who go on treatment for HIV and AIDS, five people become infected. In 2007 the Global HIV Prevention Working Group (PWG) projected that 60 million new cases of HIV will occur by 2015 unless comprehensive HIV prevention is sufficiently increased. Those infected will require costly treatment, care and support. It is expected that scaling up combination prevention efforts would avert more than half of all new HIV infections expected to occur between 2005 and 2015, thereby disabling the epidemic and leading to a long-term decline.

Current Issues in HIV Prevention

• RESOURCES FOR PREVENTION AND TREATMENT OF HIV AND AIDS

In June 2006, the United Nations General Assembly adopted a political declaration on HIV and AIDS which included a commitment to pursue all necessary efforts towards the goal of universal access to comprehensive prevention programs, treatment, care and support by 2010. To meet the goal of global universal access by 2010, available financial resources for HIV and AIDS must reach up to US\$ 42.2 billion— more than quadruple the resources that were available in 2007.

While a lack of resources for HIV and AIDS in general is an issue, there has been debate regarding the relative allocation of HIV and AIDS funding—how much should go towards treatment and how much towards prevention. Although resource constraints make decisions about allocation inevitable, there is an emerging consensus that treatment and prevention are best viewed as complementary strategies rather than in competition with one another.

Increased access to treatment improves opportunities for HIV prevention through increased HIV- testing—and increased testing can reduce stigma and act as an entry point to prevention services. Recent research findings also indicate that providing treatment and lowering individuals' viral load can decrease risk of infection and act as a method of prevention. It is clear that reducing new infections—prevention—goes hand-in-hand with treatment.

“Long-term, sustained progress in the fight against AIDS demands more than an exclusive focus on either prevention or treatment alone. Prevention makes treatment affordable, and treatment can make prevention more effective” [1].

SCALING UP

Scaling up is key to realizing the potential of prevention. The PWG defines scaling up HIV prevention as “ensuring that the appropriate mix of evidence-based prevention strategies achieves a sufficient level of coverage, uptake, intensity and duration to have optimal public health effect” [2]. Coverage levels for prevention services are extremely low. It is estimated that in 2005 a condom was used in only 9% of sex acts involving a non-regular partner and prevention programs reached a mere 20% of sex workers, 9% of men who have sex with men and 8% of injecting drug users globally. Only 11 % of HIV-infected pregnant women in low- and middle-income countries received antiretrovirals to reduce the risk of mother to child transmission. Globally, less than half of all school attendees receive school-based HIV education.

“A critical reason we are failing on HIV prevention is that we have not yet reached individuals and communities with the level of prevention coverage needed to have a major impact” [2].

Factors which limit scale-up efforts include:

- inadequate resources for HIV prevention;
- poor planning, prioritization, and targeting of programs;

- lack of capacity, such as health human resources and infrastructure;
- disjointed programs, such as prevention programs not integrated into institutions or other health-related services;
- reliance on ineffective interventions, such as abstinence-based programs
- inadequate implementation of interventions and approaches proven to be effective, such as harm reduction;
- lack of coordination among stakeholders; and
- the challenge of stigma.

There are many public health challenges surrounding the development, implementation and evaluation of HIV prevention programs. These challenges include:

- a lack of surveillance data that countries need to better understand which groups to target with prevention initiatives;
- a lack of information on the impact and quality of prevention programs;
- a need for more rigorous and long-term evaluations of prevention interventions, including a need to evaluate cost-effectiveness and appropriateness of interventions for different populations;
- the difficulty of evaluating specific prevention interventions, given that prevention efforts often involve multiple interventions;
- the ethical challenges involved in research. For example, researchers face ethical challenges in conducting randomized trials where some individuals are assigned to a control group in which they do not receive the experimental prevention intervention;
- the difficulty of sustaining political support for prevention programs, compared with interventions with shorter time frames and faster results, such as treatment.
- politics and ideologies, such as the United States' global focus on abstinence-based prevention programs, which can interfere with efforts to implement effective, evidence-based prevention strategies.

Improving HIV Prevention Efforts

“KNOW YOUR EPIDEMIC”

As the HIV/AIDS epidemic varies between countries, it is critical that countries understand how the epidemic is affecting them specifically to ensure prevention interventions are appropriate and cost-effective. This

includes gathering information about HIV infection rates among different population groups within a given country. Ongoing country-level surveillance of the epidemic is essential for countries to plan and adjust their prevention strategies accordingly. Moreover, political complacency needs to be overcome—in some high-income countries, where HIV prevention was successful early on in the epidemic, HIV rates are now on the rise.

As part of “knowing your epidemic” there is a need to increase HIV testing. It is estimated that just 11% of the world's population is aware of their HIV status. The Public Health Agency of Canada estimates that only 75% of Canadians living with HIV are aware of their HIV status. Research has shown that people who are aware that they are HIV positive decrease their risk behaviours. It is essential that there be widespread and easy access for HIV-testing as part of comprehensive HIV prevention programming. It must also be emphasized that support for testing should not negate the need for privacy, confidentiality, and consent—safeguards must be in place to ensure that these rights are respected.

• DEVELOPING EFFECTIVE PREVENTION MODELS

Prevention efforts require the availability of sustainable and adequate resources and political leadership. Effective models of prevention efforts frequently have a number of common features. These include:

- adequate human resource and institutional capacity;
- a focus on interventions that are locally relevant, evidence-based, and targeted to the appropriate population;
- a comprehensive approach, including mass media campaigns to increase awareness and programs that build self-esteem and life skills such as safer sex negotiation;
- the involvement of multiple sectors, including communities which are affected by HIV/AIDS;
- initiatives to address stigma.

Respect for human rights should underlie all prevention efforts, including HIV-testing and research on existing and new prevention interventions. Prevention efforts should also involve the pursuit of structural changes that will protect the rights of people living with HIV and AIDS and people who are at risk of HIV infection.

• STRUCTURAL DETERMINANTS OF HEALTH

Structural determinants of health include the political, economic, environmental and social factors that impact health. As a multi-dimensional health issue, HIV demands a focus that transcends a health sector focus and addresses these structural determinants. Vulnerability to HIV infection is complex—it is shaped by a number of health determinants, such as gender, poverty, social support, education, human rights, and culture. Stigma and discrimination also play a key role in increasing vulnerability to HIV, in part by deterring people at risk from seeking HIV prevention services or from being tested for HIV. Prevention efforts must reflect this complexity and address the structural determinants of health if they are to be effective and sustainable.

In order to have a long-term impact on HIV rates, the interaction and influence of structural factors need to be better understood, and broad interventions which focus on these structural factors need to be implemented. It is argued that these underlying factors have not been adequately addressed to date. Measures that address the structural determinants of health and thus enhance prevention efforts may include legal reform, initiatives to increase gender equity, and anti-poverty initiatives.

“Reducing poverty and its associated conditions plays a key role in decreasing HIV-related vulnerability, underscoring the importance of integrating AIDS responses within broader development efforts” [2].

• COMPREHENSIVE PREVENTION

Not only does comprehensive prevention need to encompass structural interventions, successful prevention efforts require a diversity of biomedical and behavioural methods that will provide individuals with a range of options, and have the potential to further decrease the risk of HIV infection if used in combination. There is evidence on some HIV prevention interventions, while new approaches are undergoing testing. The PWG provides a list of 'components of comprehensive HIV prevention' which includes interventions to prevent sexual transmission, blood-borne transmission and mother to child transmission.

Interventions to prevent sexual transmission include behaviour change programs (for example, programs aimed at reducing multiple and concurrent sexual partners); promoting male and female condoms; HIV testing; diagnosis and treatment of sexually transmitted infections (STI); and adult male circumcision.

Interventions to prevent blood-borne transmission include providing clean injection equipment to injection drug users; substitution therapy for drug dependence; blood safety; and infection control in health care settings.

Interventions to prevent mother-to-child transmission include primary HIV prevention for women of childbearing age; antiretroviral drugs for mothers and newborns; prevention of unintended pregnancy among HIV positive women; safe feeding alternatives; and caesarean delivery in the case of high maternal viral load.

Existing prevention methods are at varying stages of research¹. For example, there is growing evidence that male circumcision is effective in preventing female-to-male transmission of HIV; however, there is still much that is unknown about this prevention strategy, including its impact on male-to-female transmission or transmission through anal intercourse, or how best to promote male circumcision without leading to a decline in condom use. In addition to existing interventions, it is critical that new technologies in HIV prevention, including vaginal and rectal microbicides², pre-exposure prophylaxis³ and vaccines, continue to be developed and researched in accordance with ethical standards and guidelines. Moreover, we need to learn more about behavioural and structural strategies, and in particular how to measure their impact.

Conclusion

There are doubtlessly numerous challenges to increasing and improving prevention efforts. However, if tackled with sustained and sufficient resources and dedication, comprehensive HIV prevention, implemented alongside HIV treatment, has the potential to significantly curb the HIV epidemic.

¹ For more information about existing and potential prevention methods and their current state of research, please see ICAD's fact sheet on "Tools, Trends and New Technologies in HIV Prevention," January 2008.

² Microbicides are a class of products currently being researched and developed that are designed to reduce the transmission of HIV and/or other STIs when used in the vagina or rectum. Microbicides could come in many forms, including a gel, film, sponge, vaginal ring or rectal enema.

³ Pre-exposure prophylaxis refers to an experimental HIV prevention strategy that would use antiretrovirals to protect HIV-uninfected people from HIV infection.

Resources

- See ICAD's other fact sheets, including those on prevention, for more information: <http://www.icad-cisd.com/>
- World Health Organization: <http://www.who.int/>
- Global HIV Prevention Working Group (PWG): <http://www.globalhivprevention.org/>
- UNAIDS: www.unaids.org/

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