AIDSFree Prevention Update

March 2015

This is the March 2015 edition of the AIDSFree Prevention Update, an initiative of the Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project. The AIDSFree Prevention Update is your monthly snapshot of current peer-reviewed literature and state-of-the-art program resources, tools, and curricula on HIV prevention.

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An Action Agenda for HIV and Sex Workers
Changing Gender Norms and Reducing Intimate Partner Violence: Results from a Quasi-Experimental Intervention Study With Young Men in Ethiopia


The authors conducted a quasi-experimental study of a community-based intervention, the Male Norms Initiative, in Ethiopia. This initiative works with young men to promote gender-equitable norms and reduction of intimate partner violence (IPV). This study assessed the effects of two main interventions: (1) community engagement activities (CE), and (2) interactive group education (GE). The participants (809 men aged 15 to 24) were divided into three geographically labeled groups (Gulele, Kirkos, and Bole). Gulele was assigned both the GE and CE interventions (GE + CE arm); Kirkos was assigned only the CE intervention (CE-only arm); and Bole, the comparison group, was assigned a delayed intervention after the study ended. Study results showed that in the GE + CE arm, the proportion of participants reporting IPV toward their partner during the preceding six months decreased from 53 percent to 38 percent. Self-reported IPV in the CE-only arm decreased from 60 percent to 37 percent; changes in the comparison group were negligible. The authors concluded that the Male Norms Initiative in Ethiopia successfully influenced participants’ attitudes toward both gender norms and acts of IPV. In addition, this study contributed to the base of evidence on interventions that can be successfully implemented to prevent IPV.

View Abstract

A Community Empowerment Approach to the HIV Response among Sex Workers: Effectiveness, Challenges, and Considerations for Implementation and Scale-up


The community empowerment approach has been recognized by the Joint United Nations Programme on HIV/AIDS as a best practice for sex workers for over a decade, but its large-scale implementation has been very limited. The authors conducted a systematic review and meta-analysis of the implementation, effectiveness, barriers, and facilitators of community empowerment approaches among sex workers in low- and middle-income countries. The review included 22 articles and described findings on a total of 30,325 sex-worker study participants from eight projects in Brazil, the Dominican Republic, and India. The studies included both establishment-based and non-establishment-based sex workers; and one study included male and transgender sex workers. The authors found that community empowerment-based approaches were significantly associated with reduced incidence of HIV and other sexually transmitted infections (STIs), and were also significantly associated with increases in consistent condom use with all clients. Most studies in the review incorporated community empowerment through traditional HIV prevention activities, including community-led peer education, condom distribution, and STI screening. Structural barriers to implementation and scale-up of these approaches included national laws criminalizing sex work, social stigma, discrimination, and violence against sex workers. The authors called for additional
research on community empowerment interventions to strengthen evidence about and support for community empowerment interventions for sex worker communities.

View Abstract

Using Geospatial Modelling to Optimize the Rollout of Antiretroviral-Based Pre-Exposure HIV Interventions in Sub-Saharan Africa


The authors of this study used geospatial modelling to compare two plans (based on egalitarian or utilitarian principles) for rolling out antiretroviral (ARV)-based microbicides and other ARV-based pre-exposure interventions in sub-Saharan African countries. The egalitarian plan seeks to maximize equal access to ARV resources across a geographic region; the utilitarian plan, by contrast, uses geographic targeting to maximize the number of HIV infections prevented. Both plans assume the same resource use and adhere to international ethical standards regarding resource allocation. The authors compared the two rollout plans under resource constraints, in terms of (1) the geographic strategy needed for implementation, (2) the optimal location for launching the rollout, and (3) the number of HIV infections prevented. They found overall that a utilitarian strategy that uses geographic targeting at the provincial level could prevent approximately 40 percent more HIV infections in the first year of the rollout than the egalitarian plan. This finding reflected geographic variations in incidence in sub-Saharan Africa, the authors said. They concluded that different rollout plans can affect the success of interventions to prevent HIV, even assuming similar availability of ARVs. Specifically, in low-resource provinces, geographic targeting should be used to maximize the impact of limited supplies. Further geographic targeting in provinces where incidence rates are very high could result in an even greater efficiency in resource utilization.

View Abstract

Female Sexual Partners of Male People Who Inject Drugs in Vietnam Have Poor Knowledge of Their Male Partners' HIV Status


Vietnam's HIV epidemic is concentrated among people who inject drugs (PWID), and female sexual partners (SPs) of male PWID may be at high risk for HIV infection due to incorrect knowledge of their partner's HIV status. This study assessed the level of accuracy of SPs' knowledge of their male PWID partners’ HIV status following interventions that provided individual and group counseling and outreach, distribution of informational materials, condoms, and/or HIV service referral to HIV-negative SPs in Dien Bien, Hanoi, and Ho Chi Minh City (HCMC). Between 12 and 48 months after the interventions, the authors conducted linked surveys (behavioral interviews and HIV testing) among
PWID-SP couples at all study sites. A comparison of SPs’ beliefs about their PWID partners’ HIV status and the PWIDs’ actual test results showed that a significant proportion of SPs (32 percent in Dien Bien and 44 percent in Hanoi and HCMC) lacked correct knowledge of their male partners’ status. This proportion was lower among SPs whose partners reported being tested previously (21 percent) and receiving positive results (33 percent), due to male PWID’s self-reported disclosure of HIV status to their female SPs. The authors concluded that HIV testing, disclosure, and treatment for SPs in Vietnam, as well as their empowerment within couples, can help SPs avoid acquiring HIV.

View Abstract

**Biomedical Prevention**

**Risk Factors for HIV Infection among Circumcised Men in Uganda: A Case-Control Study**


This case-control study assessed risk factors for HIV infection and post-circumcision sexual risk behaviors among Ugandan men circumcised through several approaches (medical, traditional, and religious). The study recruited 310 circumcised men (regardless of form of circumcision) aged 18–35 years who obtained HIV testing and care at the AIDS Information Center in Uganda; of these participants, 155 (cases) had tested HIV-positive and 155 (controls) had tested negative. All participants took part in a semi-structured interview questionnaire, which included a section focused on behaviors in the periods before and after circumcision. Pre-circumcision risk factors for HIV infection included being from the Bagisu tribe (which practices increased sexual behaviors during circumcision seasons), and being in a polygamous marriage. Post-circumcision risk factors included being circumcised at adulthood, resuming sexual intercourse before wound healing, inconsistently using condoms, and having sex under the influence of peers. The study also found that after circumcision the cases were more likely than controls to have engaged in risky behaviors including inconsistent or no condom use and sex with multiple, or new, sexual partners. The authors concluded that comprehensive risk reduction interventions should be integrated into all forms of circumcision, including traditional and religious circumcision.

View Abstract

‘If You Are Circumcised, You Are the Best’: Understandings and Perceptions of Voluntary Medical Male Circumcision among Men from KwaZulu-Natal, South Africa


This study explored men’s perceptions about voluntary medical male circumcision (VMMC) and sexual performance among men in Vulindlela, a rural district of South Africa. The study was nested within a larger study that provided home-based HIV counseling and testing (HBCT) and linked participants to HIV treatment and VMMC; the nested study sought to obtain in-depth information on community
members' experiences and opinions about circumcision. For four months in 2013, 24 circumcised and 21 uncircumcised men aged 18–54, who were participants in the HBCT study, took part in six focus group discussions. Men from both groups believed that VMMC could positively affect their sexual performance; circumcised men felt that VMMC improved sexual performance by facilitating better penetration and reducing condom slippage during sex. Both circumcised and uncircumcised men perceived that women preferred and desired circumcised men. However, men in the uncircumcised group also reported the fear that circumcision could negatively affect penile function. In addition, circumcised and uncircumcised men said that they would use condoms less frequently if circumcised. These findings led the authors to conclude that program developers should carefully consider possible risk compensation, along with other factors that affect both individual decisions to undergo circumcision and overall uptake of VMMC.

View Abstract

Estimating the Cost-Effectiveness of Pre-Exposure Prophylaxis to Reduce HIV-1 and HSV-2 Incidence in HIV-Serodiscordant Couples in South Africa


The authors revised an existing simulation model to include herpes simplex virus-2 (HSV-2) acquisition, transmission, and interaction with HIV-1 among serodiscordant couples in South Africa, before and for one year after antiretroviral therapy (ART), to estimate the cost-effectiveness of daily oral tenofovir-based pre-exposure prophylaxis (PrEP). The model used data from the Partners in Prevention HIV/HSV Transmission trial testing the use of pre-exposure prophylaxis (PrEP) for HIV-1 uninfected partners. The simulation began when HIV-1 serodiscordant couples were identified; the HIV-infected partners in each couple initiated ART when their CD4 cell counts fell below 350 cells/μl; and the HIV-1-uninfected partners took daily oral PrEP until their partners initiated ART and were assumed to achieve HIV-1 viral suppression. The authors estimated the cost per disability-adjusted life-year (DALY) averted for scenario 1, in which PrEP had no effect on HSV-2 acquisition, and scenario 2, in which there was a 33 percent reduction. The simulation showed that after a 20-year intervention, the cost per DALY averted was US$10,383 for scenario 1 and US$9,757 for scenario 2: modestly lower than a scenario with no effect. The authors concluded that the protective effect against HSV-2 has useful public health advantages, particularly given the absence of effective prevention strategies for HSV-2, but does not significantly affect the cost-effectiveness of PrEP in HIV-1-serodiscordant couples.

View Abstract

Challenges of Disseminating Clinical Practice Guidelines in a Weak Health System: The Case of HIV and Infant Feeding Recommendations in Tanzania


This study examined challenges to the dissemination of infant feeding guidelines and adoption of the prevention of mother-to-child transmission of HIV (PMTCT) program in Tanzania. The study, conducted at Mbarali, Tanzania, was part of a large European Union-funded health systems research project,
REACT (Response to Accountable Priority Setting for Trust in Health Systems). The authors conducted 22 in-depth interviews with members of the regional management team, district management health team members, and PMTCT staff at health facilities, and also carried out two focus group discussions with health workers from public and faith-based hospitals. They found that participants had partial and incomplete knowledge about the guidelines. Respondents emphasized the difficulty of understanding the PMTCT guidelines, which were developed in English, and said that they had limited supportive supervision to help make the guidelines comprehensible. Many informants also said that they had not received a copy of the updated recommendations. The authors concluded that there are significant gaps in knowledge about HIV and infant feeding recommendations. They added that important changes in guidelines for clinical practice cannot easily be translated to and implemented in local program settings, especially in the context of weak health care systems. Distributing new guidance thus should be accompanied by more careful education on the new procedures for health care providers.

View Abstract

Combination HIV Prevention For Female Sex Workers: What Is The Evidence?


The authors conducted a review of observational studies, randomized controlled trials, and consensus papers or program reports from implementing organizations, and a targeted web-based search of reports from the World Health Organization and the Joint UN Programme on HIV/AIDS, to identify new policy guidelines on female sex workers (FSWs) and the latest evidence on HIV prevention for this group. Behavioral and structural prevention strategies and sexual and reproductive health services for FSWs include condom distribution programs, counselling, testing, and supportive linkages to care. They found that programs for FSWs have reported more significant success in uptake and adoption of condoms than programs for any other affected population. The authors also noted that community-based programs, such as India's Sonagachi and Empower Thailand, are associated with both increased condom use and decreased HIV prevalence, not only among FSWs but also among bridge populations. Community-based programs are feasible to implement and take to scale; they are safe and are highly acceptable to FSWs. The authors stressed that new biomedical interventions, including topical and oral antiretroviral-based pre-exposure prophylaxis and earlier antiretroviral treatment as prevention, must be added to more established structural interventions such as law reform and protective policing. In addition, high levels of coverage and quality, and sustainability of services, are critical for maximizing the effect of structural interventions.

View Abstract
Effective Strategies to Provide Adolescent Sexual and Reproductive Health Services and to Increase Demand and Community Support


This review summarized initiatives to improve adolescent access to and use of sexual and reproductive health services (SRHS) in low- and middle-income countries. The authors examined four types of SRHS initiatives: (1) facility-based, (2) non-facility-based, (3) interventions to reach marginalized or vulnerable populations, and (4) interventions to generate demand and/or community acceptance. For the facility-based interventions, the authors found that combining health worker training, adolescent-friendly facility improvements, and broad information dissemination via the community, schools, and mass media was more effective than initiatives that only provided adolescent-friendliness training for health workers. Moreover, non-facility interventions (taking the services where adolescents live and congregate such as schools) were not well used, and did not improve sexual and reproductive health outcomes. Also, out-of-facility interventions were not likely to be cost-effective because of the high operating costs associated with providing multiple (including non-health-related) services. Interventions to generate demand and/or community acceptance were associated with adolescent SRHS use, and interventions to foster approval of SRHS among parents and other gatekeepers showed positive results. The authors could not identify any interventions that reported outcomes specifically for vulnerable or marginalized groups. They recommended additional research to identify the best mechanisms for delivering packages of interventions that train health workers, improve facility adolescent-friendliness, and generate demand for services among adolescents.

View Abstract

Structural Prevention

A Review of Interventions Addressing Structural Drivers of Adolescents’ Sexual and Reproductive Health Vulnerability in Sub-Saharan Africa: Implications for Sexual Health Programming


This literature review summarized interventions addressing structural drivers for the sexual and reproductive health risks facing young people (aged 14–24 years) in sub-Saharan Africa. The authors reviewed 15 articles published between 2000 and 2013 on interventions that tackled gender norms and livelihoods or poverty reduction, and that were aimed at vulnerable young people in sub-Saharan Africa. They found that most interventions addressed multiple structural factors. Seven interventions focused on HIV prevention through addressing gender norms, improving school attendance, improving participants' economic situations, and creating safe spaces; eight focused on either economic empowerment alone or economic empowerment and school attendance. Three studies...
focused on livelihoods and safe spaces; three on comprehensive sexuality and behavior change and communication; and two on parent-child communication and relationship. Because these interventions varied substantially in design and methods of evaluation, this review was not able to identify the effectiveness of any specific intervention. However, the review provided lessons learned from each intervention design that can be used when developing programs for adolescents. The authors concluded that while numerous interventions are addressing structural drivers among adolescents in sub-Saharan Africa, additional evaluations are needed to assess how these interventions work to reduce vulnerability to HIV.

View Abstract

Partner Characteristics Associated with HIV Acquisition among Youth in Rakai, Uganda


This study examined a range of sexual partner characteristics associated with HIV acquisition among youth in rural Uganda, and assessed how these characteristics independently contribute to HIV acquisition. The authors analyzed the data from Rakai Community Cohort Study (RCCS), an annual survey in which participants aged 15–24 years from 50 communities were administered an interview and offered testing for HIV and sexually transmitted infections. The authors analyzed four rounds of RCCS data collection (2005–2011) that provided the most detailed information on up to four sexual partners in the past year. After controlling for individual risk factors, the analysis showed that among the 1,969 male and 2,826 female participants, both reported having sex with non-marital partners. For young women the risk of HIV acquisition increased if their partner was a truck driver, drank alcohol before sex, and used condoms inconsistently. In young men, the risk increased with partners who were not enrolled in school and in partnerships where respondents were unable to assess their partner's HIV risk. The authors concluded that HIV prevention interventions need to take into account how to develop HIV risk and prevention messages for different types of partners. Since partner characteristics can influence HIV risk, young people need to learn how to negotiate and potentially influence the behaviors of their partners within the relationship.

View Abstract

Strengthening Government Management Capacity to Scale Up HIV Prevention Programs Through the Use of Technical Support Units: Lessons from Karnataka State, India


The authors described the Karnataka Technical Support Unit (TSU), a team of private and nongovernmental experts created to collaborate with governments to oversee and scale up HIV prevention interventions. The TSU in Karnataka provided support to the state in five key areas: assisting in strategic planning, comprehensive monitoring and evaluation, supportive supervision to intervention units, training, and information, education, and communication activities. The authors noted that creation of TSU increased the number of prevention interventions statewide from 40 to 126.
between 2009 and 2013. Moreover, the state budget for HIV prevention increased from US$8.0 million in 2007–2008 to US$13.1 million in 2011–2012, while the portion of the state budget allocated to prevention interventions among key populations tripled, from US$0.7 million to US$2.1 million. Monthly contacts with female sex workers increased from 5 percent of sex workers in 2008 to 88 percent in 2012; with men who have sex with men, from 36 percent in 2009 to 81 percent in 2012. The authors concluded that the Karnataka TSU was successful in helping the government enhance managerial and technical resources and leverage funds more effectively. This experience suggested that TSUs could be used by other state governments to improve and scale up programs, and to support previously donor-funded programs.

View Abstract

**Epidemiology**

Prevalence of HIV, HSV-2 and Pregnancy among High School Students in Rural KwaZulu-Natal, South Africa: A Bio-behavioural Cross-sectional Survey


This cross-sectional biobehavioral study described the demographic and biological characteristics of high school students in rural South Africa. The study enrolled 1,423 females and 1,252 males from 14 high schools. All participants completed self-reported questionnaires and provided dried blood spot specimens for HIV and HSV-2 testing and urine specimens for pregnancy testing. The median age of coital debut for sexually experienced students was 15 years for boys and 16 years for girls, with boys reporting more experience than girls (33.1 percent versus 21.6 percent). Boys were more likely than girls to have a sexual partner of their own age or younger. The prevalence of HIV was 1.4 percent in boys and 6.4 percent in girls, and a greater proportion of girls than boys were HIV-positive by age 18. HSV-2 prevalence was 2.6 percent in boys and 10.7 percent in girls, and increased rapidly in both from age 15. Risk factors associated with higher prevalence of HIV and HSV-2 among girls included being over age 18, previous pregnancy, and two or more deaths in the household over the previous year. The authors concluded that the high prevalence of HIV, HSV-2, and pregnancy among high school students indicates a need for school-based sexual and reproductive health services and the inclusion of adolescents in behavioral and biomedical HIV trials.

View Abstract
An Action Agenda for HIV and Sex Workers


The authors conducted a global analysis of studies on female sex workers (FSWs) and HIV among FSWs in low-, middle-, and high-income countries. They found that over half of HIV prevalence in sex workers was in sub-Saharan Africa. Data were limited for male sex workers; of 51 countries that provided the data for this issue, six reported HIV prevalence of more than 25 percent. Global data on the burden of HIV in transgender sex workers were also limited. However, the authors cited a meta-analysis of data from 14 countries which reported that transgender FSWs had a higher burden of HIV (27 percent) than other transgender women (15 percent) and male (15 percent) and female sex workers (5 percent). They called for action through *structural measures*, such as decriminalizing sex work and addressing stigma; *behavioral and biomedical prevention interventions*, such as condoms distribution, access to pre-exposure prophylaxis (PrEP), and interventions based on antiretroviral therapy; and rights-based approaches. They also summarized promising prevention strategies such as microbicides and oral PrEP, adding that more data are needed on efficacy, acceptability, adherence, and risk compensation for these interventions for these populations. They concluded by calling for appropriately tailored implementation of promising HIV interventions for sex workers, and for recognition of the diversity of sex workers and their environments.

View Abstract

The *AIDSFree Prevention Update* provides a representative sample of summaries and abstracts of recent articles on global HIV prevention issues from a variety of scientific, peer-reviewed journals. It also includes state-of-the-art program resources, such as tools, curricula, program reports, and unpublished research findings.

We would like the *AIDSFree Prevention Update* to be as helpful to you as possible. If you would like to recommend a recently published, web-accessible article or other information for inclusion, please let us know by sending an email to info@aidsfree.org.

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