AIDSFree Prevention Update

July 2016

This is the July 2016 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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Uptake of Antiretroviral Therapy and Male Circumcision After Community-Based HIV Testing and Strategies for Linkage to Care Versus Standard Clinic Referral: A Multisite, Open-Label, Randomised Controlled Trial in South Africa and Uganda

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Global AIDS Update 2016
HIV Prevention 2020: A Framework for Delivery and a Call for Action


In 2014 the Joint United Nations Programme on HIV/AIDS called for ending the HIV epidemic by 2030, and outlined a worldwide goal to reduce new adult HIV infections by 75 percent by 2020 and 90 percent by 2030. The authors summarized a management framework that outlined global, regional, national, and subnational actions for achieving these targets. The framework specifies four targets for all countries to achieve by 2020:

- **Condom use and safe behavior:** Achieving 90 percent condom use at last sex with a non-regular partner (95% for sex workers at last paid sex)
- **Antiretroviral therapy (ART):** Providing ART in all epidemic settings and subpopulations, and pre-exposure prophylaxis for all subpopulations at high risk, aiming at viral suppression for 73 percent of all people living with HIV
- **Voluntary medical male circumcision (VMMC):** Ensuring that 90 percent of adolescent boys and men aged 15–29 in the 14 priority countries undergo VMMC
- **People who inject drugs:** Providing comprehensive harm reduction services for 90 percent of individuals who inject drugs.

However, achieving these four results will require a supportive policy environment, given the range of barriers currently impeding HIV prevention uptake—stigma, bias among providers, sexual violence, discrimination, and punitive policies, among others. A management system to track progress and solve problems, the authors said, is as important as the framework.

Promoting Male Partner HIV Testing and Safer Sexual Decision Making Through Secondary Distribution of Self-Tests by HIV-Negative Female Sex Workers and Women Receiving Antenatal and Post-Partum Care in Kenya: A Cohort Study


This study assessed whether secondary distribution of self-tests could promote HIV testing among partners of pregnant women, postpartum women, and female sex workers (FSWs) in Kenya. Between January and March 2015, the authors enrolled 280 participants (61 in antenatal care, 117 in postpartum care, and 102 FSWs); follow-up interviews were completed for 265 (96%). All study participants were taught to use oral fluid-based rapid HIV tests, and received multiple test kits. Nearly all participants with a primary sexual partner at baseline reported distributing a self-test to that partner: 53 (91%) of 58 in antenatal care, 91 (86%) of 106 in postpartum care; and 64 (75%) of 85 FSWs. Of the two self-tests used by male sexual partners, four percent (2/53) of test from participants in antenatal care, two percent (2/91) in post-partum care, and fourteen percent (41/298) from FSWs had positive results. Four participants reported intimate partner violence as a result of self-test distribution. The authors concluded that providing women with multiple self-tests is a highly efficient way to identify HIV-positive individuals. They called for further implementation and evaluation of this strategy as countries develop HIV self-testing policies and consider how to use these technologies to prevent new HIV infections.

View Abstract
Sustaining the Future of HIV Counselling to Reach 90-90-90: A Regional Country Analysis


The authors of this study mapped the contribution of lay counselors to the HIV response in eight countries in sub-Saharan Africa (Guinea, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia, and Zimbabwe). Between November 2014 and August 2015, they reviewed published and grey literature, including national policies and donor proposals, and interviewed key informants on the provision of HIV testing services and adherence support by lay counselors. Findings showed that lay counselors were increasingly included in national plans or strategies, but were not included in national human resources for health data, or in information systems. Different countries had various levels and structures for supervision of lay counselors, and supervision in all settings was reported to be limited and irregular due to competing priorities. All countries lacked a professional body overseeing and protecting the work of counselors. In the majority of countries assessed, international donors have financed lay counselors thus far. However, salaries were strongly dependent on the implementing nongovernmental organizations, and could vary by a factor of three or four within a country. The authors concluded that lay counselors play a critical role in helping countries achieve both national HIV targets and the ambitious international 90-90-90 targets. They urged adequate support for the training, supervision, and remuneration of lay counselor programs.

View Abstract

Behavioral Prevention

Early Sex Work Initiation and Condom Use Among Alcohol-Using Female Sex Workers in Mombasa, Kenya: A Cross-Sectional Analysis


Between March and September 2011, the authors investigated whether early initiation of sex work was associated with consistent condom use and self-efficacy in condom negotiation among alcohol-using female sex workers (FSWs) in Mombasa, Kenya. At three drop-in HIV service centers, they interviewed 818 FSWs aged 18 or older who screened positive for hazardous or harmful drinking. Participants were asked about the age at which they first received money for sex, and the frequency of their condom use in the past 30 days. Nearly one-fifth (19.9%) reported early initiation of sex work (defined as initiation at age 17 or younger). These FSWs were less likely to report consistent condom use with paying partners compared with FSWs who began sex work when older. Early initiators reported feeling significantly less self-efficacy to refuse sex with a paying partner if a condom was not available compared with those who began sex work later. However, there was no significant difference between groups in consistent condom use with non-paying partners. The authors concluded that interventions for adolescent and adult FSWs who initiated sex work early should focus in particular on risk reduction with paying partners, and should incorporate strategies that do not require partner consent, such as pre-exposure prophylaxis, where available.

View Abstract
Development of a Multi-Layered Vaginal Tablet Containing Dapivirine, Levonorgestrel and Acyclovir for Use as a Multipurpose Prevention Technology


This article described the development of multipurpose vaginal tablets. These tablets were manufactured in layers and designed to provide immediate and sustained delivery of the antiretroviral drug dapivirine (DPV), the contraceptive hormone levonorgestrel (LNG), and the anti-herpes simplex virus drug acyclovir (ACY) at independent release rates from a single-dosage form. The tablets described contained either 400 or 600 lg of DPV, 2 lg of LNG, and 300 lg of ACY. Typically, all layers of the tablets released their total drug content within one hour, but release times depended on the tablet's design and purpose. For example, one tablet consisted of two drugs layered on the outside for immediate release of ACY and LNG; another layer released all ACY and LNG content within one hour while sustaining the release of DPV for up to eight hours. Thus, the multi-layer tablets could be designed individually to control the amount and timing of the drug release. The authors concluded that this multi-layered tablet technology could provide women with protection from HIV, herpes, and unwanted pregnancy using a single dosage form.

Effectiveness and Safety of Oral HIV Pre-Exposure Prophylaxis (PrEP) For All Populations: A Systematic Review and Meta-Analysis


This systematic review and meta-analysis investigated the effectiveness of oral PrEP containing tenofovir (TDF) for all people at substantial risk of HIV. The authors reviewed 39 articles and six conference abstracts covering 18 PrEP-related studies that were published between January 1990 and April, 2015. They found that PrEP was effective in reducing risk of HIV acquisition across types of sexual exposure, sexes, PrEP regimens, and dosing schemes. Trial-level adherence moderated the impact of PrEP on HIV acquisition; PrEP was more effective in reducing risk of HIV infection with higher adherence levels. Overall, the level of effectiveness within each study was similar to the proportion of people in the active arm who had detectable levels of the PrEP drug, indicating that PrEP was highly efficacious when used. However, the authors noted that despite this evidence of effectiveness, there were gaps: for example, it is not known how PrEP will be perceived and used among young people in real-world settings. They suggested the following promising approaches: (1) providing information about how well PrEP works when used properly; (2) building community support for PrEP; (3) allowing choice in contraceptive use; and (4) combining PrEP programs with social marketing campaigns and adherence support programs.

View Abstract

View Abstract
A Phase II Randomized Controlled Trial Comparing Safety, Procedure Time, and Cost of the PrePex™ Device to Forceps Guided Surgical Circumcision in Zimbabwe


This phase II, randomized, open-label trial compared the performance of the PrePex device to forceps-guided surgical circumcision in healthy adults. The authors used pre- and post-circumcision measures over a nine-week study period at a family planning clinic in Harare that provides free surgical male circumcision (MC). The 240 participants were randomized to the device arm (n = 160) or the surgical arm (n = 80), all participants received the intervention allocated. The authors reported that the PrePex procedure time required approximately one-third the time of the surgical procedure (4.8 minutes versus 14.6 minutes). Participants in the surgical arm experienced more pain than those in the PrePex arm. Six weeks after surgery or device application, 87 percent of PrePex circumcisions had healed, compared with 76 percent of surgical circumcisions. The unit cost of a PrePex procedure was USD$8.27 less than that of surgical circumcision. The authors concluded that the trial results showed that the PrePex procedure is safe, quick and easy to carry out, effective in terms of surgical time, and cost-effective as an alternative to surgical circumcision. They added that PrePex device had great potential for use in overburdened health systems and resource-limited settings, and for adult MC scale-up.

View Abstract

Treatment Failure and Drug Resistance in HIV-Positive Patients on Tenofovir-Based First-Line Antiretroviral Therapy in Western Kenya


This cross-sectional study, conducted at Moi Teaching and Referral Hospital in Western Kenya, examined viral load (VL), drug resistance, and their correlates in patients on six months of tenofovir-based (TDF) first-line antiretroviral therapy (ART). The study enrolled 333 HIV-positive male and female patients between December 2012 and November 2013. The authors used two definitions for treatment failure: VL40 copies/mL (assay detection limit) and VL1000 copies/mL (World Health Organization threshold). Eligible participants fit into one of two distinct groups: those who began ART on a TDF-containing regimen (TDF-only group) and those who switched to TDF from a prior non-TDF first-line regimen (prior-ART group). Failure rates were higher in the TDF-only group than the prior-ART group, measured by both VL thresholds (24% versus 7% had detectable VL; 15% versus 1% had VL1000 copies/mL). Among the TDF-only group, participants failing treatment were more likely to have advanced disease stage and lower CD4 values. In the prior-ART group, failure was marginally associated with seven-day ART adherence. Among 35 available genotypes from 51 participants in the TDF-only group with VL40 copies/mL, 89 percent had any resistance, and 83 percent had dual-class resistance in 83 percent. This study demonstrated results of the implementation of first-line TDF-containing regimens, and supported switching to TDF-based regimens from other first-line medications.

View Abstract


This study used a mathematical model of HIV transmission in KwaZulu-Natal to estimate the effectiveness and cost-effectiveness of expanding antiretroviral therapy (ART) through home HIV testing and counseling (HTC), with linkage to care and ART initiation based on either CD4 count alone, or CD4 combined with viral load data. For a scenario of home HTC every five years, the authors calculated the incremental cost-effectiveness ratio per HIV infection, HIV-associated death averted, and quality-adjusted life-years gained. The model showed that home HTC every five years, with linkage to care and ART initiation at CD4 counts of 350 cells/µL or less, reduced HIV incidence by 40.6 percent over ten years. Expanding ART to people with CD4 counts above 350 cells/µL who also have a viral load of 10,000 copies/mL or more showed an additional decrease in HIV incidence by 51.6 percent. Thus, combining CD4 and viral load counts was the most cost-effective strategy for preventing HIV infections, at USD$2,960 per infection averted. The authors concluded that providing province-wide home HTC every five years was a cost-effective strategy for increasing ART coverage and reducing HIV burden. They recommended expanding home HTC and integrating these strategies into existing HIV programs.

View Abstract

Uptake of Antiretroviral Therapy and Male Circumcision After Community-Based HIV Testing and Strategies for Linkage to Care Versus Standard Clinic Referral: A Multisite, Open-Label, Randomised Controlled Trial in South Africa and Uganda


This study investigated whether community-based HIV testing with counselor support and point-of-care CD4 cell count testing would increase uptake of antiretroviral therapy (ART) and male circumcision (MC). Between June 2013 and March 2015, 15,332 participants were tested in South Africa and Uganda. Those found positive (n = 1,325) were randomly assigned in a factorial design to receive (1:1:1) lay counselor clinic facilitation, lay counselor follow-up visits, or standard clinic referral; and subsequently (1:1) either point-of-care CD4 testing or referral for CD4 testing. HIV-negative uncircumcised men (n = 750) were randomly assigned to receive mobile phone text message reminders, home visits, or standard referral for MC. Lay counselor facilitation of clinic visit increased clinic linkage; and lay counselor follow-up increased ART uptake. Text message reminders and lay counselor visits increased uptake of MC; with text messages, MC uptake nearly doubled relative to standard referral. Half of HIV-positive individuals in both groups (community-based and standard clinical care) achieved viral suppression at nine months. The authors concluded that community-based approaches and use of trained lay people are key components of combination HIV prevention strategies.

View Abstract
Community Cultural Norms, Stigma and Disclosure to Sexual Partners among Women Living with HIV in Thailand, Brazil and Zambia (HPTN 063)


This study explored the disclosure patterns of HIV-positive women in three settings with concentrated or generalized epidemics: Brazil (n = 99), Thailand (n = 100), and Zambia (n = 100). The authors assessed disclosure to sexual partners, sexual risk behavior, and clinical status were assessed at baseline and at 3, 6, 9 and 12 months via audio computer-assisted survey. At baseline, half of all women (45.3%) reported perceived community HIV stigma at baseline; and 42.9 percent acknowledged perceived community gender norms (marriage and procreation). More Zambian women (66%) endorsed these norms than Thai (38%) or Brazilian women (24%). Two-thirds (67%) of women reported disclosing to their sexual partner at baseline. No significant difference was noted in disclosure to sexual partners over time among the total group or within and across sites. Women who were older (24–44 versus 18–24), had symptoms of severe depression, and those who reported anticipated stigma, were less likely to disclose. Women who were unmarried and those who were not cohabiting with their partner were also less likely to disclose to their sexual partners. The authors concluded that interventions to promote disclosure among women in serodiscordant relationships should incorporate community-level interventions to reduce stigma and promote gender equality.

View Abstract

Effects of PREPARE, a Multi-component, School-Based HIV and Intimate Partner Violence (IPV) Prevention Programme on Adolescent Sexual Risk Behaviour and IPV: Cluster Randomised Controlled Trial


This cluster-randomized controlled trial, PREPARE, conducted among young adolescents (average age 13 years) in Western Cape, South Africa, evaluated an HIV prevention program that included a focus on reducing IPV and sexual violence. The multi-component intervention at the 20 intervention schools included an educational program (21 sessions delivered once a week, immediately when school ended, on the school premises); a school health service (education on sexual and reproductive health or SRH, identification of need for SRH services or commodities, and referral to the nearest community clinic if needed); and a school safety program. Participants in the 22 control schools received school as usual, which excluded the after-school program, the school health service, and the safety program. Of 6,244 sampled adolescents, 55.3 percent participated. At 12 months there were no differences between intervention and control arms in sexual risk behaviors. However, participants in the intervention arm were less likely to report IPV victimization (35.1% versus 40.9%), suggesting that behavioral HIV prevention programs that include a focus on IPV prevention can reduce self-reported intimate partner violence. The authors concluded that interventions such as PREPARE have potential beneficial effects on one of the factors that strongly affects adolescents’ risk of sexually transmitted infections and HIV.

View Abstract
Is Working Risky or Protective for Married Adolescent Girls in Urban Slums in Kenya? Understanding the Association between Working Status, Savings and Intimate-Partner Violence


This study focused on the association between work and experience of physical violence among married adolescents, and looked at the impact of access to independent financial resources on this risk. Between August and December 2013 the authors used a dataset of 452 adolescent girls residing in low-income, informal settlements (slums) in four Kenyan cities and towns: Nairobi, Kisumu, Nakuru, and Thika. This activity was part of a baseline survey for an intervention to build social, health, and economic assets for vulnerable young women in these cities. About one-fourth of girls who worked had experienced physical violence during the previous six months, compared with 16 percent of girls who did not work. Major factors associated with reduced odds of experiencing physical violence were primary education, secondary education, and ownership of jewelry. Working with no regular savings was associated with greater odds of intimate partner violence, compared to girls not working. Saving regularly was not associated with violence; and partner trust regarding money was associated with 63 percent lower likelihood of violence compared with not having partner trust. The authors concluded that while economic empowerment in the form of work for married adolescent girls may increase their risk of experiencing violence, having savings can be protective.

View Full Study

Reports, Guidelines & Tools

Political Declaration on HIV and AIDS: On the Fast-Track to Accelerate the Fight against HIV and to End the AIDS Epidemic by 2030

United National General Assembly (June 2016).

The Political Declaration on Ending AIDS calls on the world to achieve the following goals:

- Reduce new HIV infections to fewer than 500,000 globally by 2020
- Reduce AIDS-related deaths to fewer than 500,000 globally by 2020

The Political Declaration endorses outreach for key populations (sex workers, men who have sex with men, people who inject drugs, transgender people, and prisoners). It also commits to addressing the disproportionate burden of HIV on women and girls, achieving gender equality, investing in women’s leadership, and ending all forms of violence and discrimination against women and girls. It recognizes that progress in protecting and promoting the human rights of people living with, at risk of, and affected by HIV. Countries committed to urgently addressing low treatment coverage rates among children living with HIV, eliminating new infections among children, and ensuring that their mothers have access to antiretroviral therapy. They also agreed to intensify outreach in locations of high HIV transmission. Leaders made commitments for effective allocations of funds to implement a Fast-Track HIV response; and Member States promised to enhance monitoring and accountability, while endorsing the more active involvement of people living with, affected by, and at risk of HIV.

View Full Text (PDF, 398 KB)
Global AIDS Update 2016


This report states that since 2010, the extraordinary scale-up of antiretroviral treatment (ART) by many of the world’s most affected countries has reduced AIDS-related deaths from 1.5 million in 2010 to 1.1 million in 2015. Global ART coverage reached 46 percent at the end of 2015. Gains were greatest in eastern and southern Africa, where coverage increased from 24 percent in 2010 to 54 percent in 2015, reaching a total of 10.3 million people. However, declines in new HIV infections among adults have slowed alarmingly in recent years; the estimated annual number of new infections remains nearly static at about 9 million. Again, the largest reduction in new adult infections occurred in eastern and southern Africa. The Asia and Pacific regions and western and central Africa achieved more gradual declines. New adult infection rates were relatively stable in Latin America and the Caribbean, western and central Europe, North America, the Middle East, and North Africa. However, the annual number of new HIV infections in Eastern Europe and Central Asia increased by 57 percent. UNAIDS urges countries to continue to scale up HIV prevention programs while maintaining the rollout of treatment, and to work closely with civil society, communities, and people living with HIV, to ensure that they know where their epidemics are concentrated and that they have the right services in the right places.

View Full Report (PDF, 1.84 MB)

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.

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