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This is the April 2017 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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Feasibility and Acceptability of HIV Self-Testing among Pre-Exposure Prophylaxis Users in Kenya


This mixed-method, prospective study (November 2013–June 2015) examined the feasibility, acceptability, and use of HIV self-testing among HIV-negative individuals who were using pre-exposure prophylaxis (PrEP) within the Partners Demonstration Project on HIV prevention among serodiscordant couples. During routine quarterly visits, the 222 participants received fingerstick rapid HIV tests; between visits, they administered an oral self-test kit once monthly. Quantitative and qualitative findings showed that:

- Of 219 enrollees who had at least one follow-up visit, 93.2 percent reported conducting at least one HIV self-test.
- Most of the 1,282 kits dispensed (95.6%) were reported used, and most participants (98.7%) reported not sharing the kits. Median follow-up time for enrollees was 11 months.
- Nearly all participants (96.8%) found the self-testing kit easy or very easy to use; and most (90.8%) reported using it without help. Over half (54.5%) said that they did not share their test results with anyone.

Interviews showed that a main motivator for self-testing was that it reduced the anxiety of the wait for clinic-based testing; also, participants appreciated the convenience of testing at home. The authors concluded that self-testing could support PrEP delivery in similar populations and could save time for both clinicians and clients. They suggested examining self-testing for PrEP users over longer intervals, such as quarterly self-testing with visits every six months.

**View Abstract**

Educating Religious Leaders to Promote Uptake of Male Circumcision in Tanzania: A Cluster Randomised Trial


This cluster-randomized trial in northwest Tanzania (June 2014–December 2015) examined whether educating village religious leaders about male circumcision (MC) could increase its uptake within their communities. The Ministry of Health (MOH) carried out MC outreach in 16 villages, and services were divided into 8 pairs. One village in each pair was randomly selected to receive either education for Christian church leaders on scientific, religious, and cultural aspects of MC (intervention) or standard MC outreach (control). Religious leaders in the intervention group received a one-day seminar taught by a pastor and a clinician from the MOH and participated in biweekly meetings with the study team throughout the circumcision campaign. In the intervention villages, 30,889 men (52.8% of all men) were circumcised, versus 25,434 men (29.5% of all men) in the control villages. The authors said that although this study took place in a specific region of Tanzania, their approach was to provide church leaders with knowledge and tools, leaving the leaders to promote MC in the most appropriate way for their
communities. This approach could thus be applied generally. They concluded that working through religious leaders is an innovative way to promote healthy behaviors for HIV prevention and other clinical outcomes in a variety of settings.

**View Abstract**

**Can Policy Interventions Affect HIV-Related Behaviors? A Systematic Review of the Evidence from Low- and Middle-Income Countries**


This study systematically reviewed existing evidence on the effect of HIV policy interventions on changing HIV-related behaviors in low- and middle-income countries. They defined “HIV policy interventions” as those in which a policy or law enacted by a local or national government or workplace was implemented with the goal of influencing HIV-related behavior change. The authors reviewed 15 interventions focused on HIV prevention policy (1990–2013) and identified strong evidence that prevention policies implemented among multiple populations can be effective in changing HIV-related behaviors. All policies examined led to significant changes in HIV-related outcomes—though some were negative and unanticipated (for example, some policies included in the review resulted in severe human rights violations). Other outcomes, such as a fourfold increase in condom use among sex workers with new clients or in pregnant women accepting HIV testing in prenatal care, suggested the potential of interventions promoted through policies. The authors found no studies examining HIV policy interventions among populations such as men who have sex with men, adult females not employed in sex work, or serodiscordant couples; a limited number examined patients with tuberculosis, students, and people who inject drugs. Their study, they said, suggested that combining behavioral interventions with policy interventions can be more effective than a behavioral intervention alone. They called for more policy evaluation.

**View Abstract**

**Behavioral Prevention**

**Gender Norms, Gender Role Conflict/Stress and HIV Risk Behaviors among Men in Mpumalanga, South Africa**


This study examined associations between both gender norms and men’s gender role conflict and stress (GRC/S) (men’s stress about playing their expected roles as men) and HIV risk behaviors. The authors used data from a population-based survey of 579 men aged 18–35 years in rural northeast South Africa, and they developed a GRC/S scale focused on three behaviors: sexual partner concurrency, intimate partner violence (IPV), and alcohol abuse. The GRC/S scale incorporated sub-elements describing men’s views on gender equity (such as tolerance for violence); success (the ability to earn money or “win” in competition); subordination to women (the need to earn more than women); emotional expression; and sexual prowess. The findings showed high prevalence of concurrency and IPV perpetration in the past.
12 months (38.0% and 13.4%, respectively); 19.9 percent of men abused alcohol. More inequitable gender norms and higher GRC/S were each significantly associated with greater likelihood that each of the three risk factors would be present. Further analysis suggested that subordination to women was strongly linked to concurrency; that constricted emotional expression was key to IPV perpetration; and that limited success was linked to alcohol abuse. These findings, the authors said, pointed to a strong need for programs to transform gender norms; these should be coupled with effective strategies for addressing men's GRC/S.

View Abstract

Biomedical Prevention

What Device Would Be Best for Early Infant Male Circumcision in East and Southern Africa? Provider Experiences and Opinions with Three Different Devices in Kenya


Within a larger evaluation of the safety and efficacy of the AccuCirc® device for early infant male circumcision (EIMC), the authors held a discussion in which 11 Kenyan providers discussed the appropriateness of three EIMC devices (AccuCirc, Mogen clamp, and PrePex®) within their work context. No device was seen as clearly superior to the others; providers' preferences were situation-specific. Most participants preferred the Mogen clamp if they themselves were performing the procedure, but expressed concerns about its potential to injure the penis glans; whereas the AccuCirc prevents this risk. A minority preferred the PrePex, but only if the baby received local anesthesia, not the analgesic cream prescribed by the manufacturer. In the context of a national EIMC program, all participants recommended the AccuCirc device, because it protects the glans from laceration and comes in a pre-assembled sterile kit, eliminating the need for additional supplies or autoclaving. All agreed that scaling up EIMC and integrating it with existing maternal child health services will face significant challenges, including persuading already overburdened providers to take on additional workloads. These results will be useful to programmers considering introduction of EIMC services in sub-Saharan African settings.

View Full Study

PMTCT Service Uptake among Adolescents and Adult Women Attending Antenatal Care in Selected Health Facilities in Zimbabwe


To understand the uptake of HIV services by adolescent women, the authors conducted a retrospective analysis of patient-level data (2011–2013) on services for antenatal care (ANC) and prevention of mother-to-child transmission (PMTCT) in 36 facilities in 5 districts in Zimbabwe. Zimbabwe's Option A policy encourages pregnant women to attend ANC before 14 weeks gestation and to begin antiretroviral therapy ( ART) if eligible. The authors compared service uptake by 22,215 adolescent (<19 years) and adult women (≥19 years). Adolescents (22.5% of the total) were 34 percent more likely to present to ANC before 14 weeks gestational age than older women; just over one-third of both adolescents and adults
completed the four recommended visits. Acceptance of HIV testing was high in both groups (>95%). HIV prevalence was 5.5 percent in adolescents versus 20.1 percent in adults. While the majority of both HIV-positive groups received antiretrovirals for PMTCT (84%), fewer eligible adolescents than adults were initiated on ART (44% versus 51.3%), though the difference was not statistically significant. Pregnant adolescents must be a priority for primary HIV prevention services and expanded HIV treatment services among pregnant women to achieve an AIDS-free generation in Zimbabwe and similar high-HIV burden countries.

View Abstract

Structural Prevention

Uptake Contexts and Perceived Impacts of HIV Testing and Counselling among Adults in East and Southern Africa: A Meta-Ethnographic Review


This meta-ethnography examined the context and efficacy of HIV testing and counseling (HTC) uptake in East and Southern Africa and analyzed the perceived impacts of counseling on sexual behavior and linkage to care. HTC is usually delivered through voluntary counseling and testing (VCT), provider-initiated counseling and testing (PITC), and home-based voluntary counseling and testing (HBVCT). Following a systematic literature review, the authors identified 20 qualitative and mixed-method studies conducted from 2003 through April 2014. They found that decisions on VCT were made individually, usually related to prolonged illness or perceived risk, and also in the context of mutual encouragement by peers. Decisions on HBVCT were made in families and communities, often through the influence of partners, village chiefs, and counselors. PITC was associated with coercion from providers, especially in antenatal care settings where women did not feel able to refuse testing. Numerous factors, especially stigma, the quality of health services, fear of test outcomes, and gender norms, facilitated or impeded uptake of the different testing models. The authors concluded that HBVCT, which minimizes stigma, should be prioritized. They added that although good counseling can effectively convey information on HIV and sexual risk, it was seen as ineffective in addressing broader personal circumstances that affect sexual risk behavior and access to care.

View Full Study

Factors that Motivated Otherwise Healthy HIV-Positive Young Adults to Access HIV Testing and Treatment in South Africa


To clarify factors motivating healthy individuals to seek HIV testing and treatment, the authors conducted in-depth interviews with 25 HIV-positive young adults (age 18–35 years) with a CD4 count >350 cells/mm³ who recently started or decided to start antiretroviral therapy in Gugulethu, South Africa. They found that several factors influenced a participant’s decision to seek testing. Avoiding stigma (by appearing healthy) was a primary motivator. Other factors included social support—a close associate who
advocated testing—responsibility for a child or desire to be healthy and achieve goals and aspirations, the perceived “normalcy” of having HIV, and availability of accessible services. Participants also mentioned concerns about side effects from treatment or the difficulty of maintaining the medication schedule as barriers requiring serious thought. The authors noted that stigma can serve as both a barrier and a motivator for testing and treatment. They said that the study shows the importance of health maintenance as a driver of early treatment initiation, and urged including maintenance of physical appearance in the development of novel testing and treatment interventions.

View Abstract

**Population Attributable Fraction of Incident HIV Infections Associated with Alcohol Consumption in Fishing Communities Around Lake Victoria, Uganda**


This community-based cohort study examined the population-attributable fraction (PAF) of alcohol-related HIV incidence. The authors enrolled 1,607 HIV-negative participants aged 18–49 years and followed up with 1,288 (80.1%) of this group one year later. At baseline and in follow-up visits, participants completed interviewer-administered questionnaires on alcohol consumption, demographics, and sexual risk behavior, and were tested for HIV infection. Over half of participants (53.5%) reported drinking alcohol; of these, about one-fourth drank occasionally or often (24.4% and 29.1%, respectively). At follow-up, 48 incident infections had occurred: 10 among nondrinkers, 12 among occasional drinkers, and 26 among regular drinkers. Compared to nondrinkers, the adjusted incident rate ratio (IRR) of HIV was 3.09 (1.13-8.46) among occasional drinkers and 5.34 (2.04-13.97) among regular drinkers. The overall adjusted PAF of incident HIV infections due to alcohol was 64.1, ranging from 52.3 (11.9-74.2) among Muslims to 71.2 (32.6-87.7) for participants who reported two or more sexual partners in the past 12 months. Alcohol consumption was associated with HIV risk behaviors such as multiple partners, though consistent condom use was higher among regular drinkers than among occasional drinkers and nondrinkers. The authors concluded that alcohol contributes to new infections in these communities and recommended integrating interventions to reduce alcohol consumption within prevention activities for similar high-risk communities.

View Full Study

**Physical and Sexual Violence Affecting Female Sex Workers in Abidjan, Côte d’Ivoire: Prevalence and the Relationship between Violence, the Work Environment, HIV and Access to Health Services**


This study estimated the prevalence of violence (physical and sexual) among female sex workers (FSWs) in Côte d’Ivoire, where sex work is legal but soliciting is criminalized, and examined structural risks for HIV in this context. The authors used respondent-driven sampling to recruit 466 FSWs aged over 18 years in Abidjan and administered HIV testing and a socio-behavioral questionnaire that included information on work-related risks, payment arrangements, police practices, and health service indicators. One-quarter (24.1%) of participants reported that police refused to protect them because of their work;
31.2 percent reported harassment or intimidation; both were significantly associated with physical and sexual violence. One-fifth of the FSWs reported being blackmailed, which was associated with physical and sexual violence, and the majority (80.5%) had been offered more money for condomless sex, which was associated with sexual violence. HIV prevalence among participants was 11 percent, but 25 percent overall said that they avoided health services because of their profession. These findings, the authors said, indicate the need for structural interventions and policy reforms to improve work environments and to address police harassment, stigma, and rights violations to reduce violence and improve access to HIV interventions for FSWs in Côte d’Ivoire.

View Abstract

Demographics, Behaviors, and Sexual Health Characteristics of High Risk Men Who Have Sex With Men and Transgender Women Who Use Social Media to Meet Sex Partners in Lima, Peru


This study compared the demographic and sexual characteristics of men who have sex with men (MSM) and transgender women (TW) who did and did not use social media to make sexual connections. A total of 312 MSM and 89 TW received testing for HIV and sexually transmitted infections (STIs) and answered a survey covering demographics, behaviors, sexual health, and social media practices. Fewer than half of MSM and TW used social media to find sex partners (115 and 29, respectively), using a variety of sites and applications. MSM who used social media were younger, more educated, and more likely to identify as gay. They were significantly more likely to report high-risk behavior (more sex partners; sex in higher-risk venues and contexts) and to present with a rectal STI. TW with social media sex partners were younger, less educated, and more likely to participate in sex work; they had a lower rate of rapid plasma reagin positivity or history of syphilis. About one-third of participants (118) were HIV-positive. The authors called for strategies targeting Peruvian MSM and TW who use social media to address their higher-risk sexual behavior and the high burden of STIs in these two groups.

View Abstract

Economic Resources and HIV Preventive Behaviors among School-Enrolled Young Women in Rural South Africa (HPTN 068)


This study examined associations between individual economic resources and HIV preventive behaviors among rural South African women who were enrolled in school. The authors used baseline data from the HIV Prevention Trials Network (HPTN) 068 study to examine links between resources and delayed sexual debut, along with six HIV prevention behaviors, among 2,533 young women aged 13–20 years. Age-adjusted results showed that among all participants, employment significantly increased the likelihood of ever having sex. Food sufficiency and lack of indebtedness, by contrast, significantly decreased the likelihood of sexual experience. Among sexually experienced women, paid work was significantly linked to HIV preventive practices in terms of selection of sexual partners and periodic abstinence. Women who worked for pay, had money to spend on themselves, or had a bank account were significantly more likely to use three or more HIV prevention strategies than women who lacked these resources. For example, women who had a bank account were more likely to use condoms, and those with money to spend on themselves were more likely to have fewer sexual partners, discuss HIV
testing with partners, and discuss condom use. Economic hardship was positively associated with ever having sex, but not with sexually protective behaviors. The authors concluded that maximizing women’s individual economic resources may complement future prevention initiatives.

**View Abstract**

**Association between Food Insecurity and HIV Viral Suppression: A Systematic Review and Meta-Analysis**


The authors of this systematic review focused on clarifying the relationship between food insecurity and poor viral suppression in HIV-positive people who are receiving antiretroviral therapy. The authors searched five electronic databases for studies on this topic published through April 2015 and identified 11 eligible studies (9 from North America, 1 each from Brazil and Uganda). Their analysis showed that experiencing food insecurity reduced the likelihood of achieving complete HIV viral suppression by 29 percent across all studies and study designs. The authors noted that these findings did not demonstrate a causal link between food insecurity and incomplete viral response. In addition, they suggested that because of the provenance of most of the eligible papers, these findings may not be generalizable to low-income countries. However, they concluded that HIV-positive persons who are food-insecure may represent a more vulnerable population needing greater attention from providers and programmers.

**View Abstract**

**Epidemiology**

**The HIV Care Cascade among Female Sex Workers in Zimbabwe: Results of a Population-Based Survey From the Sisters Antiretroviral Therapy Programme for Prevention of HIV, an Integrated Response (SAPPH-IRe) Trial**


The authors of this study conducted cross-sectional respondent-driven sampling (RDS) surveys of female sex workers (FSWs) in 14 sites across Zimbabwe as the baseline for the SAPPH-IRe cluster-randomized, controlled trial (2013–2016), which investigated a combination HIV prevention and care package for this population. They recruited 2,722 women aged 18–65 years (approximately 200 per site), administered a questionnaire, tested the women for HIV, and measured viral load. The mean HIV prevalence was 57.5 percent. Of HIV-positive women, 64.0 percent knew their status. Among women with known status, 67.7 percent reported taking antiretroviral therapy (ART); and 77.8 percent of FSWs on ART had a suppressed HIV viral load (<1,000 copies/mL). Among all HIV-positive women, 49.5 percent had a viral load <1,000 copies/mL. A substantial proportion of women had experienced violence (40.3% from partners, 27.7% from clients, and 9.7% from police). These findings, the authors said, pointed to an urgent need to invest in testing, care, and treatment programs to address the high HIV prevalence among FSWs in Africa.

**View Abstract**
STIs among Men Who Have Sex With Men in Dodoma Municipality, Tanzania: A Cross-Sectional Study


This cross-sectional study examined the prevalence of HIV, sexually transmitted infections (STIs), and related risks among men who have sex with men (MSM) in Dodoma Municipality, Tanzania. They used respondent-driven sampling to recruit 409 MSM aged 18 years and over. Participants completed a survey on sociodemographics, knowledge of HIV and STIs, and sexual practices and were tested for HIV and selected STIs. The findings showed an HIV prevalence of 17.4 percent; STIs were also present, particularly herpes simplex virus 2 (HSV-2) (present in 38.5% of participating MSM). Enrollees reported various modes of anal intercourse as their last anal intercourse: receptive (37.5 %), insertive (47.5%), or both insertive and receptive (15%). Overall, 13.9 percent of participants reported using a condom with their last male partner. The likelihood of being HIV-positive was significantly higher for MSM with certain characteristics, including (among numerous others) testing positive for HSV-2, being in a relationship with a woman, engaging in receptive anal intercourse, perceiving themselves to have low HIV risk, engaging in unprotected sex, and taking part in group sex. These findings, the authors said, underscored the urgency of intensifying tailored programs to prevent HIV in MSM, including interventions for behavioral change communication; prevention and management of HSV-2 and other STIs; and HIV care and treatment.

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.

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