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This is the October 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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**Guideline on When to Start Antiretroviral Therapy and on Pre-exposure Prophylaxis for HIV**
Cost-effectiveness of Pre-exposure Prophylaxis Targeted to High-risk Serodiscordant Couples as a Bridge to Sustained ART Use in Kampala, Uganda


This study estimated the real-world delivery costs of pre-exposure prophylaxis (PrEP) by conducting micro-costing and time and motion analyses of the 2012 cost of PrEP and antiretroviral therapy (ART). The authors used data from participants in the Uganda Partners Demonstration Project, an open-label prospective study that examined the feasibility of ART and PrEP interventions to prevent HIV transmission among high-risk serodiscordant couples. The study analyzed Ministry of Health costs for PrEP and ART provision within a government program, as well as the cost of providing PrEP in addition to ART; and compared these costs to those incurred in the research setting. Findings showed that the annual cost of PrEP and ART delivery for serodiscordant couples was US$1,058 per couple in the research setting and $453 in the government setting. The portion of the program cost due to PrEP was $408 and $92 per couple, per year in the study and government settings, respectively. Over 10 years, a program of PrEP and ART for high-risk serodiscordant couples was projected to avert 43 percent of HIV infections, compared to 37 percent of infections averted through ART expansion alone. The authors concluded that incorporating PrEP into existing ART and HIV testing services is a cost-effective HIV prevention approach.

View Abstract

Sexual Behaviors and Transmission Risks among People Living with HIV: Beliefs, Perceptions, and Challenges to Using Treatments as Prevention


In 2013 and 2014, the authors tested the hypothesis that among HIV-positive persons, beliefs about infectiousness (that sex is safer when a person is treated with antiretroviral therapy or ART) or transmission risk (that HIV transmission risks are lower when viral load is undetectable) would independently predict condomless sex with partners of negative or unknown HIV status. Participants (538 men and 166 women in Atlanta, Georgia) provided computer-assisted self-interviews to assess demographic characteristics; beliefs about infectiousness and transmission risk; HIV RNA (viral load) and CD4 cell counts from medical records; and urine specimen screening for substance use and sexually transmitted infections (STIs). The study found that 44 percent of participants engaged in condomless sex with partners who were HIV-negative or of unknown status, and also had higher rates of STI symptoms. Two-thirds of these participants had not disclosed their HIV status. Moreover, individuals who engaged in condomless sex with these partners perceived a significantly greater reduction in risk when HIV viral load was undetectable. The authors concluded that sexually active people living with HIV often believe that HIV treatment reduces the risk of HIV transmission, and perceive lower risk for transmission when HIV viral load is suppressed. They called for interventions to encourage HIV status disclosure and address beliefs about HIV transmission.

View Abstract
"From Me to HIV": A Case Study of the Community Experience of Donor Transition of Health Programs


This qualitative study, conducted between 2010 and 2013 in four Indian states, used longitudinal case studies, focus group discussions, and in-depth interviews to examine the transition from donor funding and management to government ownership of HIV programs. The authors reported results on (1) the experience of transition, (2) changes to clinical services, and (3) changes in community outreach and mobilization. For the experience of transition, they found that communications about transition to key personnel and front-line staff were minimal and inadequate. Across states, even when respondents knew of the transition, they did not fully understand its nature or implications. Regarding changes to clinical services, the authors reported that most key personnel described more sensitive treatment from government providers following the transition. However, some participants expressed a fear that providers would disclose their HIV status; and some reported more difficulty in accessing health services due to increased distance to government facilities, inadequate staffing, and language barriers. Regarding changes in community outreach and mobilization, participants expressed criticism of government commodities, particularly condoms and lubricants. They also said that community events have become less frequent since the transition, probably because of decreased funding. The authors recommended engaging community stakeholders early in the transition process to ensure that community needs are met more effectively.

View Abstract

Community Collectivization and Consistent Condom Use among Female Sex Workers in Southern India: Evidence from Two Rounds of Behavioral Tracking Surveys


This study assessed how community collectivization influenced consistent condom use (CCU) by female sex workers (FSWs) with different types of partners. Community collectivization empowers key populations as a group to reduce their vulnerability and improve their ability to control and make decisions about their own behaviors and ultimately, to adopt and maintain healthy behaviors. The authors collected data from two rounds of cross-sectional surveys in 2010 (N1 = 1,986) and 2012 (N2 = 1,973) among FSWs in Andhra Pradesh, India. The authors found that CCU with occasional clients increased significantly from 2010 (72 percent) to 2012 (85 percent). CCU with regular clients also increased, from 64 percent (2010) to 76 percent (2012). Moreover, FSWs who reported a high degree of collective efficacy were more likely than those who reported low levels of collective efficacy to report CCU with occasional clients (72 percent versus 73 percent in 2010, and 59 percent versus 90 percent in 2012). The authors concluded that structural interventions such as community collectivization for HIV prevention can have a positive, sustained impact on behavior change among FSWs, both by enhancing FSWs’ self-efficacy and self-confidence, and ensuring the continued practice of safe sex behaviors. They recommended that new and existing structural interventions programs consider including community mobilization.

View Abstract
Dyadic Dynamics of HIV Risk among Transgender Women and Their Primary Male Sexual Partners: The Role of Sexual Agreement Types and Motivations


The authors of this study used data from a community sample of transgender women and their primary male sexual partners (N = 191 couples) to examine (1) the prevalence and type of sexual agreements among these couples; (2) whether intentions for sexual agreement were associated with extra-dyadic HIV risk (condomless sex with outside partners); and (3) whether these intentions were associated with HIV serodiscordant intra-dyadic risk (condomless sex with main partners). Overall, 55.1 percent (n = 102) of couples reported concordance in their sexual agreement; 40.0 percent (n = 74) had monogamous agreements and 15.1 percent (n = 28) had open agreements. However, 44.9 percent of couples reported discrepant agreements (one partner indicated having an open agreement and the other reported a monogamous agreement). For male partners, extra-dyadic risk was associated with their own and their partners’ reasons for sexual agreement and male partners who engaged in extra-dyadic HIV risk were more likely to have condomless (and risky) sex within the partnership. The authors concluded that researchers and prevention providers should involve both transgender women and their male partners to understand the couples’ agreements and equip them with skills to discuss their agreements openly, so that both partners can make informed choices about their acceptable levels of risk.

View Abstract

Biomedical Prevention


This study used the health belief framework—postulating that an individual’s actions are based on beliefs—to identify factors predicting uptake of HIV testing for prevention of mother-to-child transmission (PMTCT) of HIV. In September 2013, the authors administered a structured questionnaire to 308 antenatal clients in Addis Ababa, and analyzed their responses to determine the impact of age, perceived net benefit, perceived threat, perceived self-efficacy, and cues to action. The authors found that women aged 21 to 25 years and 26 to 30 years were more likely to utilize HIV testing. However, respondents in other age groups who perceived low net benefits from HIV testing were found to be 0.34 times less likely to accept HIV testing for PMTCT. Women reporting high perceived self-efficacy were found to be 1.90 times more likely to undergo HIV testing for PMTCT on the present pregnancy. Perceived threat (including perceived susceptibility to HIV and perceived severity of the threat) was not statistically associated with HIV test uptake among respondents in this study. The authors concluded that building self-efficacy might have the greatest impact on increasing uptake of HIV testing among pregnant women.

View Abstract
Understanding the Socio-economic and Sexual Behavioural Correlates of Male Circumcision across Eleven Voluntary Medical Male Circumcision Priority Countries in Southeastern Africa


This study explored correlates of male circumcision and factors (age, religion, education, sexual behavior, and others) that were associated with men's circumcision status in African countries prioritized for circumcision, seeking to provide insights on programming and policy decisions. The authors used data from Demographic and Health Surveys (2006–2011) from 11 countries to conduct univariate analyses for individual countries, and also combined all countries for regional trends. Country results varied widely, but overall, men with higher levels of education who lived in urban areas, were married, and had professional occupations were more likely to be circumcised. Additionally, men of Muslim faith were more likely than non-Muslim men to be circumcised. The authors also found that circumcised men were more likely to have concurrent partners. Moreover, circumcision was positively associated with lower reported incidence of sexually transmitted infections, more reports of safe sexual behavior, and greater knowledge of how to prevent HIV. The authors concluded that as countries scale up medical circumcision programs, policymakers and implementers should consider these factors to better target interventions.

View Abstract

Covering the Last Kilometer: Using GIS to Scale-up Voluntary Medical Male Circumcision Services in Iringa and Njombe Regions, Tanzania


The authors of this paper described a successful voluntary medical male circumcision (VMMC) program in two regions on Tanzania, implemented by the Maternal and Child Health Integrated Project (MCHIP). In 2012 MCHIP began using geographic information systems (GIS) to strategically plan the location of outreach campaigns. The project gathered geocoded data on variables such as roads, road conditions, catchment population, staffing, and infrastructure for every health facility in Iringa and Njombe. The data were then uploaded to a central database and overlaid with various demographic and service delivery data in order to identify the VMMC needs of the two regions. The authors reported that since GIS was introduced in 2012, the project increased the number of VMMC procedures from 88 percent to 93 percent of the targeted number for VMMC procedures by the end of project in 2014. This novel but practical approach not only increased access to services for some of the most underserved populations, the authors said, but also enabled the Tanzania Ministry of Health to exceed its five-year strategic goal for VMMC in these regions. The paper also offered important lessons to help other VMMC programs reach their targets; these lessons could also be useful in other public health and wellness programs that seek to expand their reach.

View Abstract
Strengthening HIV Test Access and Treatment Uptake Study (Project STATUS): A Randomized Trial of HIV Testing and Counseling Interventions


This study compared three models of HIV testing services (HTS) in outpatient departments (OPDs) in South Africa, Tanzania, and Uganda. The authors conducted client interviews and focus group discussions with participants at 12 OPDs in each country that had been randomized to one of three HTS models: Model A (clients received HTS after clinical consultation); Model B (providers offered and delivered HTS during clinical consultation); and Model C (nurses or lay counselors provided HTS before clinical consultation), and conducted client interviews and focus group discussions. More age-eligible clients were tested in Model C (54.1 percent), followed by Model A (41.7 percent) and Model B (33.9 percent). Of newly identified HIV-positive clients (1,596 in total from the three models), 96.1 percent of those receiving Model A were referred to care, 94.7 percent in Model B, and 94.9 percent in Model C. Additionally, 74.4 percent entered on-site care in Model A, 54.8 percent in Model B, and 55.6 percent in Model C. The authors concluded that Model C, where nurses or counselors provided HTS before clinical consultation, resulted in the highest percentage of client testing for eligible clients. This model was convenient for clients and incurred no additional waiting time; and HTS was provided by specifically trained staff.

View Abstract

Home-based HIV Testing for Men Preferred over Clinic-based Testing by Pregnant Women and Their Male Partners, A Nested Cross-sectional Study


This cross-sectional study, conducted within a randomized trial in rural Nyanza province, Kenya, compared the acceptability of three approaches—facility-based HIV testing services (HTS), home-based voluntary counseling and testing (VCT), or antenatal (ANC) clinic-based HTS—for testing the male partners of pregnant women. The authors interviewed 300 pregnant women and 188 male partners on their preferred setting and compared setting preference at baseline and at a six-week follow-up visit. They reported that 59.4 percent of all participants (women and partners) preferred home-based HTS for male partner HTS during pregnancy, compared to ANC clinic-based (28.3 percent) and VCT center-based (12.3 percent). In addition, more men than women (68.1 percent versus 54.0 percent) preferred home-based male partner HTS. Only 19.2 percent of men (compared to 34 percent of women) preferred ANC clinic-based HTS. VCT center-based testing was the least preferred setting, both among men (12.8 percent) and women (12.0 percent). At six-week follow-up, 81 percent of men and 65 percent of women preferred home-based over alternative HTS venues. The authors concluded that home-based HTS during pregnancy was the most acceptable for both female and male partners, and suggested that adopting home-based models may improve men’s uptake of HTS and involvement in prevention of mother-to-child HIV transmission.

View Abstract
Evaluating the Impact of Health System Strengthening on HIV and Sexual Risk Behaviors in Nigeria


The Enhancing Nigeria’s Response to HIV/AIDS health system strengthening (HSS) project was launched in 2009 to reduce the prevalence of HIV in focus states across the country. This study evaluated the impact of this HSS initiative on HIV prevalence and sexual risk behaviors in the general population in seven states, and compared outcomes in the HSS states to those of seven socio-demographically similar control states. A total of 4,856 and 11,712 respondents were surveyed in 2007 and 2012, respectively. HIV prevalence in HSS and non-HSS states was 6.3 percent versus 5.3 percent, respectively, in 2007; and 2.96 percent versus 5.08 percent in 2012. Prevalence in rural regions declined between 2007 and 2012 in HSS states (from 7.58 percent to 5.93 percent), but increased significantly in non-HSS states (from 2.46 percent to 4.81 percent). Moreover, respondents in HSS states were more likely to report using condoms consistently in the past three months with a boyfriend or girlfriend, and had more comprehensive HIV knowledge. The authors concluded that HIV prevalence decreased, and sexual risk behaviors declined, in HSS states between 2007 and 2012, and called for wider rollout of HSS intervention in order to achieve greater success.

View Abstract

Advancing the Strategic Use of HIV Operations Research to Strengthen Local Policies and Programmes: The Research to Prevention Project


The authors of this paper highlighted four case studies from the Research to Prevention project to demonstrate how context-specific operations research (OR) can help prioritize strategies and improve local HIV prevention programs and policies. The case studies, drawn from OR conducted in the Caribbean and sub-Saharan African regions, illustrated several ways in which OR can support positive change. These included (1) translating findings from clinical trials to real world settings; (2) adapting promising structural interventions to a new context; (3) tailoring effective interventions to underserved populations; and (4) prioritizing key populations within a national response to HIV. These examples, the authors said, show how OR can lead to "real-world" change, and expand expectations about the role and utility of OR. They concluded that OR studies and their findings should be brought into national dialogues and policy debates to strengthen HIV responses at national and global levels.

View Abstract

Applying Qualitative Data Derived from a Rapid Assessment and Response (RAR) Approach to Develop a Community-based HIV Prevention Program for Adolescents in Thailand


The authors used the Rapid Assessment and Response (RAR) method to obtain input relevant to the design of a community-based and culture- and age-appropriate HIV prevention program for adolescents in Bangkok. They conducted focus group discussions with community members including 19 adolescents aged 12–22 years and 9 adults aged 23 years and older. Participants were asked questions regarding perceived HIV risk for adolescents; specific language/slang about HIV used by adolescents; awareness of available adolescent HIV programs; and views about such programs or services. Adolescents expressed a need for information on how
individuals were infected; how to protect themselves; and how to live with affected individuals. Most participants expressed discomfort with the use of slang and preferred that more formal language be used in education programs. All adolescents recommended that group sessions consist of practical demonstrations of condom use and other practical life skills. They also suggested that programs be led by providers such as physicians or nurses, whom adolescents would see as experts. The authors concluded that the RAR method is a viable method for engaging communities to ensure that programs meet the needs of their intended beneficiaries.

**View Abstract**

**Young Men’s Social Network Characteristics and Associations with Sexual Partnership Concurrency in Tanzania**


This 2011 study described networks, referred to as “camps,” of mostly young men in Dar es Salaam, Tanzania. The authors conducted surveys of 10 camp networks (490 men and 160 women). All participants were asked to complete a one-time, hour-long, structured survey with a study interviewer. The authors reported that 55 percent of male camp members engaged in concurrent sexual relationships. Younger men in the camps who had older, rather than younger, friends in their networks were more likely to engage in concurrency. The authors also found a direct association between inequitable gender norms and concurrency, and suggested that addressing gender norms during interventions with men may have an effect on concurrency behavior. In addition, being in school was negatively associated with concurrency among the men in the study. This suggests that keeping men in school would have a protective effect similar to that observed when girls are kept in school. The authors concluded that the men were more likely to have engaged in concurrent partnerships if they were in close-knit camps where most male members reported concurrency. They suggested that further research on networks and HIV risk behavior could help to develop interventions targeted to specific social contexts.

**View Abstract**
Epidemiology

Using Hepatitis C Prevalence to Estimate HIV Epidemic Potential among People Who Inject Drugs in the Middle East and North Africa


The authors of this study examined the association between HIV and hepatitis C virus (HCV) among people who inject drugs (PWID) in the Middle East and North Africa (MENA) region, and used HCV prevalence to estimate the HIV epidemic potential among PWID. They based their analysis on data from a recent systematic review assessing the status of the HIV epidemic among PWID in 23 MENA countries. Their analysis showed that HCV prevalence was not associated with HIV in low-level HIV epidemics, but was a significant predictor of HIV prevalence in settings where the HIV epidemic is emerging or established. In emerging epidemics, HCV was significantly associated with the highest increase in HIV prevalence compared with other epidemic states; country and study site were also significant predictors. In established epidemics, HCV prevalence was the only predictor of HIV. The authors concluded that HCV prevalence could be a predictor of future endemic HIV prevalence, and predicted further growth of the HIV epidemic in MENA countries. They also stated that their methodology can identify PWID populations that should be prioritized for HIV prevention interventions.

View Abstract

Guideline on When to Start Antiretroviral Therapy and on Pre-exposure Prophylaxis for HIV

World Health Organization (September 2015).

In September 2015 the World Health Organization (WHO) released early guidelines that highlight two key recommendations: (1) initiating antiretroviral therapy (ART) for every person living with HIV, regardless of CD4 cell count; and (2) using daily oral pre-exposure prophylaxis (PrEP) for individuals at high risk of HIV acquisition. These two recommendations were made available on early-release basis because of their potential to significantly reduce the number of people acquiring HIV infection and dying from HIV-related causes, and to exert a significant effect on global public health. The WHO guidelines target national HIV program managers who will be responsible for adapting the new recommendations at the country level, along with other stakeholders including national tuberculosis program managers, civil society organizations, and domestic and international funders of HIV programs. The full update of the guidelines on using antiretroviral drugs to treat and prevent HIV infection is expected in 2016. It will include comprehensive clinical recommendations and revised operational and service delivery guidance to help support implementation.

View Full Document (PDF, 2.23 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. 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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