



# AIDSFree Prevention Update

January 2015



Welcome to the AIDSFree Prevention Update, a new 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. You are receiving this email because you previously subscribed to the AIDSTAR-One HIV Prevention Update.

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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.

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## NIH-Sponsored PROMISE Study Identifies Superior Drug Regimen for Preventing Mother-to-Child HIV Transmission

*National Institutes of Health (NIH) News, November 17, 2014.*

The ongoing PROMISE (Promoting Maternal-Infant Survival Everywhere) trial compared the safety and effectiveness of three drug regimens for preventing vertical transmission of HIV. The randomized clinical study enrolled 3,485 HIV-positive pregnant or postpartum women who were not receiving HIV treatment, and over 3,200 HIV-exposed infants of these women in India, Malawi, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. The women were randomly assigned to receive either Option A (giving women zidovudine in early pregnancy, nevirapine during labor, and tenofovir and emtricitabine after delivery), or one of two three-drug regimens (Option B or B+). The first cocktail combined lamivudine, zidovudine, and ritonavir-boosted lopinavir (the lamivudine combination); the second combined tenofovir, emtricitabine, and ritonavir-boosted lopinavir (the tenofovir combination). Seroconversion occurred in 0.5 percent of infants whose mothers received the lamivudine combination, and 0.6 percent of infants whose mothers received the tenofovir combination. By comparison, 1.8 percent of infants whose mothers received Option A became infected. Women who received the lamivudine combination also had fewer severe pregnancy complications than those who received the tenofovir combination. In addition, fewer infants whose mothers received the lamivudine combination died within two weeks of birth, compared to infants whose mothers received the tenofovir combination or Option A. These findings supported implementation of Option B or B+, and suggested that the lamivudine combination may be the safer of the two triple drug options.

For more information:

- ▶ Read the [PROMISE study launch announcement](#)
- ▶ Visit [ClinicalTrials.gov](#) (study identifiers [NCT01061151](#) and [NCT01253538](#))

## How Can We Get Close to Zero? The Potential Contribution of Biomedical Prevention and the Investment Framework towards an Effective Response to HIV

**Stover, J., Hallett, T. B., Wu, Z. *PLoS ONE* (November 5, 2014), Vol. 9, pp. 1–9.**

The authors modeled the impact of three new prevention technologies: test and treat (T&T), pre-exposure prophylaxis (PrEP), and HIV vaccination in 24 countries that account for 85 percent of new infections. They divided the adult population into 11 main risk groups, and modeled the impact of each new technology by itself: (1) providing antiretroviral therapy (ART) to 40–60 percent of HIV-positive adults with CD4 counts >500 cells/ml; (2) providing PrEP to men who have sex with men, female sex workers, and discordant couples in all countries, and to adolescents in hyper-endemic countries; (3) providing HIV vaccine to 40–70 percent of adults in generalized epidemics, and to 30–60 percent of high-risk populations in concentrated epidemics. The model showed that expanding ART coverage in line with the World Health Organization's (WHO) 2013 treatment guidelines could reduce annual new infections by 83 percent by 2050. However, introducing each new intervention led to significant reductions in HIV incidence and mortality; for example, T&T reduced new infections in 2050 by 6–10 percent. The authors concluded that while scaling up the 2013 WHO guidelines had the greatest impact, the addition of all four interventions could reduce the new infection rate to as low as 80,000 per year by 2050.

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## Combination HIV Prevention among MSM in South Africa: Results from Agent-Based Modeling

Brookmeyer, R., Boren, D., Baral, S. D., et al. *PLoS ONE* (November 2014), Vol. 9, Issue 11, pp. 1–9.

Agent-based modeling simulates interactions between individuals (agents) who may change their behavior in response to other agents, or to changes in the environment. The authors of this study developed an agent-based model to determine the effectiveness of combination HIV prevention interventions among men who have sex with men (MSM) in South Africa. They assessed 163 HIV prevention packages that included four components: antiretroviral therapy (ART) for HIV-positive persons with CD4 count >350; pre-exposure prophylaxis (PrEP) for high-risk uninfected persons; behavioral interventions to reduce rates of unprotected anal intercourse (UAI); and campaigns to increase HIV testing. They then used the agent-based model to identify a four-component HIV prevention package suitable for MSM in South Africa. This package consisted of 50 percent ART coverage for persons who were not already receiving ART, 50 percent PrEP coverage for high-risk persons, 15 percent UAI reduction, and a 50 percent increase in HIV testing among MSM. This package, the authors said, could prevent about 34 percent of HIV infections over a five-year period. Also, the 15 percent reduction in UAI prevented 21 percent of infections--the largest incremental impact on infections within this package. The authors concluded that a combination prevention package consisting of these interventions at the coverage described could be effective in preventing new HIV infections among MSM in South Africa.

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## Behavioral Interventions

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### Factors Underlying the Success of Behavioral HIV-Prevention Interventions for Adolescents: A Meta-Review

Protogerou, C., & Johnson, B. T. *AIDS and Behavior* (October 2014), Vol 18, pp. 1847–1863.

The authors analyzed quantitative and qualitative reviews published to date to identify characteristics of successful HIV prevention interventions for adolescents aged 10–19, focusing on reduction of sexual risk-taking. After examining five eligible meta-analyses and six qualitative reviews, they identified four categories (factors) of interventions that were associated with reduced sexual risk-taking: (1) use of behavior change techniques (e.g., training to enhance motivation and build skills in cognitive behavior); (2) participant characteristics (e.g., age and vulnerability to contracting sexually transmitted infections including HIV); (3) application of design features (e.g., application of theory, formative research); (4) and socio-ecological features (e.g., supportive school environment). The findings showed that behavioral interventions had positive outcomes in at least one of the following: improving knowledge about HIV or safer sex, self-efficacy, delaying next sexual intercourse, encouraging abstinence, decreasing frequency of sex or number of partners, and increasing condom use. Of the four categories examined, the first, use of behavior change techniques (such as practicing communication and negotiation skills) was most closely linked to reduced sexual risk-taking; the fourth category, socio-ecological features, was the least effective. The authors concluded by endorsing the efficacy of behavioral HIV prevention interventions for adolescents, and called for formative research for full implementation of each of the four elements discussed.

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## **Behavior Change Pathways to Voluntary Medical Male Circumcision: Narrative Interviews with Circumcision Clients in Zambia**

**Price, J. E., Phiri, L., Mulenga, D, et al. *PLoS ONE* (November 2014), Vol. 9, No. 11, e111602.**

This qualitative study showed that tailored messages, delivered by an appropriate "messenger," are critical to the acceptance of voluntary medical male circumcision (VMMC). The authors interviewed a sample of 40 married and unmarried men over age 18 in two VMMC clinics in Lusaka, Zambia to understand how these men first became interested in circumcision, what brought them to the VMMC clinic, and whether the medical sector met their needs. At the two high-volume clinics (>30 VMMC services daily), the authors conducted interviews in line with the Stages of Change behavioral theory to document the men's VMMC-seeking behavior from the time they first learned about adult circumcision to the time when they entered the medical facility to seek the procedure. A major finding was that the messenger was as important as the message in the decision-making process. The interviews showed that messages about VMMC play an important role on men's behavior change; but the men also expressed the need for messages tailored to their specific needs and concerns about VMMC. Also, their frequent reference to peers and friends underscored that peer-to-peer messages play an important role in behavior change. The interviewees stressed that clinics should avoid turning men away (due to lack of supplies, for example), since this may discourage some men from returning to the clinic.

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## **Male Circumcision, Alcohol Use and Unprotected Sex among Patrons of Bars and Taverns in Rural Areas of North-West Province, South Africa**

**Nkosi, S., Sikweyiya, Y., Kekwaletswe, C. T., et al. *AIDS Care* (November 27, 2014), pp. 1–6, E-publication ahead of print.**

The authors of this study examined the relative importance of alcohol consumption and both medical male circumcision (MMC) and traditional male circumcision (TMC) as correlated with unprotected sex; and compared the risk of unprotected sex between traditionally circumcised and medically circumcised tavern-going men from two rural villages in North West province, South Africa. The 314 study participants were asked to respond to an interviewer-administered structured questionnaire about their demographic characteristics, alcohol use, circumcision status, method of circumcision (i.e., traditional or medical), and condom use behavior in the past six months. The authors used a 10-item Alcohol Use Disorders Identification Test (AUDIT) approach to assess the participants' alcohol consumption. Using descriptive analyses and bivariate and multivariate logistic regression analysis, they showed that age, education, relationship status, alcohol consumption, and TMC were independently significantly associated with unprotected sex. Additionally, the study found that TMC men had a higher risk of engaging in unprotected sex than MMC men. The authors concluded that more research is needed to better understand factors that could account for differences in behavior between TMC and MMC men. They also urged including interventions to reduce alcohol consumption and encourage protective behavior among TMC men within HIV prevention education.

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### **Risk Compensation Following Male Circumcision: Results from a Two-Year Prospective Cohort Study of Recently Circumcised and Uncircumcised Men in Nyanza Province, Kenya**

Westercamp, N., Agot, K., Jaoko, W., et al. *AIDS and Behavior* (September 18, 2014), Vol. 18, pp. 1764–1775.

This study was the first to compare long-term changes in HIV risk perception and sexual risk behavior in men before and after circumcision. The study, conducted in the context of a Kenyan national voluntary medical male circumcision (VMMC) initiative, took place in three districts of Nyanza Province (two rural, one urban) and enrolled men seeking VMMC services at participating health facilities. Enrollees included 1,588 men in the circumcision group and 1,598 uncircumcised men in the control group. During follow-up visits at 6, 12, 18, and 24 months, all study participants underwent visual examination to confirm circumcision status, completed the study questionnaire, were encouraged to attend HIV testing and counseling, and viewed HIV educational videos, but did not receive any direct risk reduction counseling. The authors found no evidence of risk compensation in men following circumcision. The proportion of men reporting condom use at last sexual encounter increased for both groups, with a significant increase among circumcised men (30 percent, versus 6 percent in the control group). The authors concluded that the study found no evidence of risk compensation, and that risk compensation is unlikely to affect the scale-up of VMMC programs in Kenya and elsewhere.

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### **First Population-Level Effectiveness Evaluation of a National Program to Prevent HIV Transmission from Mother to Child, South Africa**

Goga, A. E., Dinh, T. H., Jackson, D. J., et al. *Journal of Epidemiology & Community Health* (November 2014), pp. 1–9, doi: 10.1136/jech-2014-204535, E-publication ahead of print.

The authors reported on the first population-level study to assess the effect of South Africa's national program for preventing mother-to-child transmission (PMTCT) of HIV. They conducted a facility-based survey of 10,178 caregiver-infant pairs recruited from 565 clinics, focusing on vertical HIV transmission occurring between four and eight weeks post-partum. Data collection included interviews with caregivers, record reviews, and infant dried blood spots to identify HIV-exposed infants (HEI) and HIV-infected infants. During analysis the authors categorized antiretroviral (ARV) use in terms of the type of treatment described through self-reporting: (1) triple ARV treatment; (2) prophylaxis (>10 weeks, ≤10 weeks, and incomplete); (3) no antenatal ARV, and (4) missing ARV information. The study found that nationally, 32 percent of live infants were HEI; mother-to-child transmission (MTCT) within the time assessed was 3.5 percent. Among HEI, 29.4 percent were born to mothers on triple ARV treatment; 55.6 percent on prophylaxis; 9.5 percent to mothers receiving no antenatal ARV; and 5.5 percent with missing ARV information. The authors concluded that South Africa's PMTCT program has achieved country-level success, reducing early MTCT to <5 percent in a high-HIV-prevalence African setting. However, more research is needed on long-term infant HIV-free survival, and on the population-level effect of various PMTCT regimens.

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## Combination Interventions

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### Effects of a Couple-Based Intervention to Reduce Risks for HIV, HCV, and STIs among Drug-Involved Heterosexual Couples in Kazakhstan: A Randomized Controlled Trial

El-Bassel, N., Gilbert, L., Terlikbayeva, A., et al. *Journal of Acquired Immunodeficiency Syndrome* (October 1, 2014), Vol. 67, No. 2, pp. 196–203.

The authors of this article described a randomized controlled trial in Kazakhstan to address the co-occurring epidemics of HIV and hepatitis C virus (HCV) infection among persons who inject drugs (PWID). This study tested the efficacy of a behavioral, couple-based intervention aimed at reducing: (1) incidence of unprotected sex and of HIV, HCV, and other sexually transmitted infections (STIs), and (2) unsafe injection practice among PWID and their partners. A total of 300 eligible participants were recruited from health clinics, harm reduction service centers, and PWID networks in the city of Almaty. Participants were randomly assigned to either a five-session risk reduction (RR) intervention, or a five-session wellness promotion (WP) intervention (the control group). At the 12-month follow-up, participants in the RR arm had 51 percent lower incidence of HIV infection and 69 percent lower HVC infection than the WP control participants. Participants in the RR arm also showed a 42 percent lower incidence of unprotected sex with their partners, compared to those in the WP arm. The authors concluded that behavioral interventions can provide significant impact to HIV/HCV/STI prevention efforts, and should be scaled up for PWID in harm reduction programs, drug treatment, and criminal justice settings.

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## Structural Interventions

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### The Impact of SASA!, A Community Mobilization Intervention, on Reported HIV-Related Risk Behaviors and Relationship Dynamics in Kampala, Uganda

Kyegombe, N., Abramsky, T., Devries, K. M., et al. *Journal of the International AIDS Society* (November 2014), Vol. 17, E-publication.

Start, Awareness, Support and Action (SASA!) is a community mobilization intervention that seeks to prevent intimate partner violence (IPV) and reduce HIV-related risk behaviors at the community level. The authors assessed the community-level effect of SASA! on primary and secondary outcomes for IPV, HIV-related risk behaviors, and relationship dynamics. This research, conducted between 2007 and 2012 in two administrative divisions of Kampala, Uganda, included four intervention and four control sites. Two cross-sectional surveys were conducted at baseline and follow-up (1,583 and 2,532 participants, respectively, from randomly selected households), with separate quantitative analyses for male and female respondents. Men's reported condom use at last intercourse with their partner was higher in the intervention group (41 percent) compared to men in the control group (22 percent). Men in the intervention group were also 50 percent more likely to have tested for HIV. Women in the intervention group felt significantly more able to refuse sex with their partner than women in the control groups. In addition, more women in the intervention group reported relationship improvements, including joint decision-making and open communication with their partner. The authors concluded that a community-level intervention such as SASA! can improve relationship dynamics and reduce HIV-related risk behaviors between intimate partners.

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## **Intimate Partner Violence and HIV in Ten Sub-Saharan African Countries: What Do the Demographic and Health Surveys Tell Us?**

**Durevall, D., Lindskog, A. *The Lancet Global Health* (November 2014), doi: 10.1016/S2214-109X (14)70343-2, E-publication.**

This study systematically analyzed the association between intimate partner violence (IPV) and HIV in women in 10 sub-Saharan African countries. The authors used data from 2014 Demographic and Health (DHS) surveys to determine the conditions in which the association between IPV and HIV infection was recorded. These DHS datasets, nationally representative for women aged 15–49 years, included HIV testing and a complete domestic violence module. The authors collected data (findings from blood spot samples from eligible men and binary indicators [yes or no] from eligible women in randomly selected households) to assess physical, sexual, and emotional violence, controlling behavior, and combinations of the above; and compared these indicators in IPV-exposed women with those in non-exposed women. The findings confirmed that IPV was associated with significantly higher risk of HIV among women. Analysis of risks by indicator also revealed details about the effects of specific male behavior. For example, controlling male behavior and physical and emotional violence increased the probability of HIV infection for all women, whereas sexual violence was a significant HIV risk only in the sample of women in their first union. The authors concluded that HIV prevention programs in high HIV prevalence areas should focus on men with controlling behavior in addition to those with violent behavior.

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## **Multiple Sexual Partnerships among Female Adolescents in Rural Uganda: The Effects of Family Structure and School Attendance**

**Pilgrim, N. A., Ahmed, S., Gray, R. H., et al. *International Journal of Adolescent Medicine and Health* (November 2014), doi: 10.1515/ijamh-2014-0032, E-publication ahead of print.**

Family structure and school attendance are believed to play a critical role in adolescents' sexual behaviors, providing direct emotional, social, and economic support, as well as positive or negative role models. The authors of this study sought to clarify the influence of families and school attendance on young women's sexual risk behaviors, so as to identify new HIV prevention strategies for this group. The authors analyzed the most recent available survey interviews for 2,337 unmarried girls aged 15–19 years who were enrolled in the Rakai Community Cohort Study in rural Uganda between 2001 and 2008. The analysis was stratified by age (15–17 and 18–19 years) and school status (in or out of school). The findings showed that in both age groups, girls living with their biological father reported lower risk behaviors, including fewer sexual partners, compared do those living with a stepfather or in another family structure. In addition, adolescents currently enrolled in school reported fewer partners over the past year, suggesting that school attendance is associated with lower risk behavior. The authors concluded that HIV prevention interventions for adolescent girls should consider both family structures and school attendance status.

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## **The SHAZ! Project: Results from a Pilot Randomized Trial of a Structural Intervention to Prevent HIV among Adolescent Women in Zimbabwe**

**Dunbar, M. S., Kang Dufour, M. S., Lambdin, B, et al. *PLoS ONE* (November 2014), doi: 10.1371/journal.pone.0113621.**

Shaping the Health of Adolescents in Zimbabwe (SHAZ!) is a randomized controlled trial comparing the HIV prevention impact of a combined intervention package (including life-skills and health education, vocational training, micro-grants, and social supports) to the impact of life skills and health education alone. This study assessed the impact of adding a *livelihoods intervention* (financial literacy education and a choice of vocational

training); and *integrated social support* (guidance counseling to help participants navigate challenges, along with self-selected adult mentors) to the combined SHAZ! intervention package. The study included 315 eligible female adolescents aged 16–19 years who were randomly assigned to the intervention or control group. Intervention participants received the livelihood and integrated social support interventions, in addition to the other SHAZ! interventions that all participants received. The study found that intervention participants had lower risk of transactional sex [IOR=0.64, 95% CI (0.50, 0.83)], and a higher likelihood of using a condom with their current partner [IOR=1.79, 95% CI (1.23, 2.62)] over time compared to baseline. There was also evidence of fewer unintended pregnancies among intervention participants [HR=0.61, 95% CI (0.37, 1.01)], although this relationship achieved only marginal statistical significance. The authors concluded that future HIV prevention packages for adolescent females should include interventions for vocational training and micro-grants along with other interventions.

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### **Male Partner Influence on Women’s HIV Prevention Trial Participation and Use of Pre-exposure Prophylaxis: The Importance of “Understanding”**

**Montgomery, E. T., van der Straten, A., Stadler, J., et al. *AIDS and Behavior* (November 2014), E-publication ahead of print.**

Male partners are believed to have significant influence over their female partner’s ability to negotiate about and use female-controlled HIV prevention methods. The authors of this study investigated how men influenced their female partner’s ability to participate in the ongoing Vaginal and Oral Interventions to Control the Epidemic (VOICE) trial, specifically the VOICE C arm, which examined social and structural influences on women’s use of antiretroviral tablets or a vaginal gel. The authors recruited 102 randomly selected trial participants in Johannesburg, South Africa. They conducted in-depth and ethnographic interviews and focus group discussions with the female participants, and in-depth interviews and focus group discussions with 22 male partners. Data analysis showed that many male partners did not fully understand or trust the research, and as a result discouraged their female partner’s use of the product or participation in the study. The study also found that because of the men’s reluctance to agree with their participation in the study, women were less likely to disclose their use of the product. The authors concluded that research is needed to identify and test strategies to proactively involve male partners in order to enhance women’s involvement and commitment to these trials.

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## **Epidemiological Interventions**

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### **Recent HIV Prevalence Trends among Pregnant Women and all Women in Sub-Saharan Africa: Implications for HIV Estimates**

**Eaton, J. W., Rehle, T. M., Jooste, S., et al. *AIDS* (November 2014), Vol. 28, Supplement 4, pp. 507–514.**

This study examined data from 13 sub-Saharan African countries to determine whether recent HIV prevalence trends among pregnant women are representative of general population trends. The authors used nationally representative household-based HIV prevalence survey data from the 13 countries, dividing their examination into two time periods: 2003–2008, and 2009–2012. For each time period, they calculated the percentage of

pregnant women, HIV prevalence among all women, and HIV prevalence among currently pregnant women; they then compared HIV prevalence trends among all women aged 15–49 years. The results showed that HIV prevalence trends among currently pregnant women aged 15–24 years were similar to trends for all women aged 15–24 years. This is consistent with previous research findings, suggesting that prevalence trends among young women attending antenatal care (ANC) were in fact representative of prevalence trends in all young women. However, HIV prevalence trends among older pregnant women were significantly lower than HIV prevalence for all older women. The authors concluded that given the difference in prevalence patterns for older pregnant women versus those for all older women, HIV prevalence surveillance among ANC attendees should be collected by age.

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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](mailto:info@aidsfree.org).

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# AIDSFree Prevention Update

*February 2015*



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. You are receiving this email because you previously subscribed to the AIDSTAR-One HIV Prevention Update.

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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.

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## **The United States President's Emergency Plan for AIDS Relief (PEPFAR) 3.0 – Controlling the Epidemic: Delivering on the Promise of an AIDS-free Generation**

**The Office of the U.S. Global AIDS Coordinator (December 2014).**

The third phase of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR 3.0) (2014–2018) focuses on epidemic control, defined as the point at which the number of new HIV infections falls below the number of AIDS-related deaths. This report provides details and benchmarks for the five action agendas that will guide this phase:

- (1) The *Impact Action Agenda* focuses resources and leverages funding to address the most vulnerable populations by strengthening program quality and scaling up core interventions.
- (2) The *Efficiency Action Agenda* works to achieve transparency, adequate oversight, and accountability for PEPFAR and its partners, to ensure optimal use of all funds.
- (3) The *Sustainability Action Agenda* focuses on putting in place the necessary services, systems, financial mechanisms, and policies to ensure that partner countries can maintain control of their epidemics.
- (4) The *Partnership Action Agenda* emphasizes establishing deeper collaboration with partners by building relationships and sharing responsibilities with a broad range of stakeholders.
- (5) The *Human Rights Action Agenda* addresses cultural and structural obstacles to care, seeking to ensure that all people, including those populations facing the greatest risk for HIV infection, have access to prevention, care, and treatment.

Implementing these five action agendas, the report states, will build the foundation for achieving an AIDS-free generation.

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## **Accuracy of Unsupervised Versus Provider-Supervised Self-Administered HIV Testing in Uganda: A Randomized Implementation Trial**

**Asiimwe, S., Oloya, J., Song, X., et al. *AIDS and Behavior* (December 2014), Volume 18, Issue 12, pp. 2477–2484.**

The authors of this article described a trial to determine whether unsupervised HIV self-testing (HST) was non-inferior (clinically accurate within acceptable parameters) compared to provider-supervised HST. The study was implemented in three fishing communities with high HIV prevalence (21 percent) in Western Uganda. The 246 study participants were randomly assigned to one of two testing arms: unsupervised oral HST followed by rapid HIV testing, or provider-supervised oral HST followed by rapid HIV testing. Participants received pre-test HIV counseling and instruction on using the oral HIV self-test kit. In the provider-supervised HST arm, research staff supervised the participants performing the test in the research clinic. In the unsupervised arm, participants performed the test without supervision, recorded their results, and returned to the clinic for a confirmatory rapid HIV test. The

overall analysis showed that the HST sensitivity (the proportion of self-tests with clinically accurate results) was 90 percent in the unsupervised arm and 100 percent in the provider-supervised arm; non-inferiority between the two arms was not shown. However, an analysis focused on findings from participants who had complied fully with the study protocol showed a lower difference in sensitivity (-5.6 percent), while also showing non-inferiority. The authors concluded that unsupervised HST is feasible in rural African settings and may be non-inferior to provider-supervised HST.

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### **Initial Programmatic Implementation of WHO Option B in Botswana Associated with Increased Projected Mother-to-Child Transmission (MTCT)**

Dryden-Peterson, S., Lockman, S., Zash, R., et al. *Journal of Acquired Immune Deficiency Syndromes* (December 2014), E-publication ahead of print.

This observational study in Botswana, the first African country to transition from Option A to Options B and B+, evaluated the initial impact of this transition through a review of 10,681 obstetric records of HIV-infected women delivering after 20 weeks' gestation at six maternity wards. Option B was rolled out nationally in phases, from early 2011 to early 2012, to enable a comparison of clinical performance under the two strategies for preventing vertical transmission of HIV. The authors divided the women into two exposure groups: the Option A group (women attending antenatal clinics that had not yet implemented Option B) and the Option B group (women registering after their clinic had implemented Option B). The analysis showed that women in the Option B group were less likely to receive antenatal care compared to the women in Option A group, resulting in a 24 percent increase in projected mother-to-child transmission (from 3.79 percent to 4.69 percent). However, those women in the Option B group who did receive antenatal care were more likely to receive antiretroviral therapy (ART). The authors suggested that initiating ART within antenatal clinics (rather than referring eligible women, as presently practiced), and removing barriers to rapid ART initiation, will facilitate successful implementation of Options B and B+ in Botswana.

[View Abstract](#)



## **Behavioral Interventions**

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### **Effects of HIV Status Notification on Reducing the Risk of Sexual Transmission of HIV in China**

Bao, Y., Jing, J., Zhang, Y., et al. *Chinese Medical Journal* (English), (December 2014), Vol. 127, Issue 24, pp. 4177–4183.

This cohort study examined differences in the risk of sexual HIV transmission between people who knew their HIV status and those who did not. The study comprised two surveys of newly diagnosed HIV-positive participants in Shanghai, Chongqing, and Kunming, China. The first survey of 823 HIV-positive participants took place before participants learned their status. The second study, with 650 participants, was conducted six months after HIV status notification. Both surveys asked questions about sexual behaviors in the past six months, including unsafe sex practices (unprotected anal and

vaginal sex with partners of positive or unknown HIV status), number of unsafe sexual partners, and frequency of unsafe sexual behaviors. Comparison of the behavior of participants with known versus unknown HIV status showed a large reduction (84.65 percent) in reports of unsafe sex (from 58.25 percent before HIV status notification to 8.94 percent after notification). Moreover, the average number of partners in unsafe sex practices dropped by over 35 percent (from 2.33 partners to 1.51 partners pre- and post-notification, respectively). The average frequency of unsafe sex dropped from 9.02 percent of all encounters before HIV status notification to 7.85 percent after notification. The authors concluded that HIV status notification can reduce the incidence of unsafe sexual practices, leading to reduced sexual transmission of HIV.

[View Abstract](#)



## Biomedical Interventions

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### Scaling-up Voluntary Medical Male Circumcision—What Have We Learned?

Ledikwe, J. H., Nyanga, R. O., Hagon, J., et al. *HIV/AIDS – Research and Palliative Care* (October 2014), Vol. 6, pp.139–146.

The authors of this review article analyzed key findings from peer-reviewed publications and reports to identify factors that supported the scale-up of national voluntary medical male circumcision (VMMC) programs in 14 priority countries in eastern and southern Africa between 2008 and 2013. They examined national health systems by assessing the six system building blocks described by the World Health Organization: 1) leadership and governance; 2) health workforce; 3) health service delivery; 4) medical products, vaccines, and technologies; 5) health financing; and 6) health information. The review identified several key factors that supported effective scale-up of programs: sustained support at all levels of government throughout the scale-up; innovative service delivery strategies to improve human resource use (such as task-sharing and -shifting) creative outreach initiatives (using tents, mobile trucks, and prefabricated clinics); timely provision of equipment and supplies to facilities; and creative strategies to fund HIV programs, such as an AIDS levy on income and an HIV trust fund. The authors stressed that each of the six building blocks should be analyzed on a country-by-country basis to better understand steps needed to scale up VMMC in specific settings. They also encouraged the countries that implement VMMC programs to share their experience so as to identify and facilitate wider adoption of best practices.

[View Full Study](#)

## Hormonal Contraceptive Use and Women's Risk of HIV Acquisition: A Meta-Analysis of Observational Studies

Ralph, L. J., McCoy, S. I., Shiu, K., & Padian, N. S. *The Lancet Infectious Diseases* (January 2015), DOI: [http://dx.doi.org/10.1016/S1473-3099\(14\)71052-7](http://dx.doi.org/10.1016/S1473-3099(14)71052-7).

The authors of this meta-analysis reviewed observational studies from sub-Saharan Africa to provide summary estimates of women's risk of HIV acquisition according to the type of hormonal contraceptive method used. They selected 12 eligible studies from peer-reviewed journals published after December 2011. Included in the review were studies that assessed the link between hormonal contraception and HIV; secondary analyses of randomized trials of HIV and cervical cancer prevention interventions; studies that consisted of women at high risk of HIV, commercial sex workers, or women in serodiscordant partnerships; and studies on women in the general population. The results showed that in observational studies of women in the general population, there was no risk for users of oral contraceptive pills or combined oral contraceptives, but a small risk of HIV acquisition associated with use of depot medroxyprogesterone acetate. However, examination of findings according to risk factor showed that hormonal contraceptive users in high-risk situations, such as commercial sex workers and women in serodiscordant partnerships, had a high likelihood of HIV exposure as an effect of hormonal contraception. This distinction, the authors concluded, had significant, global implications for low-risk users of hormonal contraception (women who are not in serodiscordant or in other high-risk partnerships). These findings, they added, should be balanced with the known benefits of highly effective hormonal contraceptives such as depot medroxyprogesterone acetate.

[View Abstract](#)



## Combination Interventions

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### Pilot Study of Home-Based Delivery of HIV Testing and Counseling and Contraceptive Services to Couples in Malawi

Becker, S., Taulo, F. O., Hindin, M. J., et al. *BMC Public Health* (December 2014), E-publication ahead of print.

This pilot study examined the uptake of couple HIV counseling and testing (CHCT) and couple family planning (CFP) services during a single home visit. The authors enrolled 180 couples from the three villages in Mpemba, a peri-urban area of Blantyre, Malawi. A pair of counselors (male and female) visited each couple and conducted a baseline interview assessing reproductive and health risks within the partnership, along with attitudinal questions about the partners' emotional closeness and likeliness to discuss pregnancy. The counselors then privately asked the female partner about her consent to CHCT + CFP, CHCT only, or CFP only. The man was offered whichever service(s) the woman had accepted. The authors reported that 89 percent of the couples accepted at least one of the services offered. Among untested participants, 78 percent of women and 91 percent of men accepted HIV testing. Additionally, reported condom use increased from 6 percent to 25 percent. Moreover, each couple's acceptance of services was positively and significantly associated with several factors

specific to the female partner: the woman's number of live births, reported emotional closeness to her partner, and prior HIV testing. The authors concluded that home-based CHCT and CFP can increase access to HIV testing and contraceptive services to couples and prevent unplanned pregnancies and sexually transmitted infections.

[View Abstract](#)

### **The HOPE Social Media Intervention for Global HIV Prevention in Peru: A Cluster Randomised Controlled Trial**

Young, S. D., Cumberland, W. G., Nianogo, R., et al. *The Lancet HIV* (January 2015), DOI: [http://dx.doi.org/10.1016/S2352-3018\(14\)00006-X](http://dx.doi.org/10.1016/S2352-3018(14)00006-X),

This cluster randomized controlled trial tested the efficacy of the Harnessing Online Peer Education (HOPE) social media intervention to increase HIV testing among men who have sex with men (MSM) in Peru. Participants were randomized to intervention ( $n = 252$ ) or control groups ( $n = 246$ ) on Facebook for 12 weeks. Thirty-four Peruvian MSM were trained as HIV mentors (peer leaders) who interacted with intervention participants on Facebook, discussing the importance of HIV prevention and testing by sending messages, chats, and wall posts. Participants in control groups received standard care, including routine care and participation in Facebook groups that provided study updates and HIV testing information. Data analysis at 12 weeks' follow-up showed that more intervention than control participants requested an HIV test, and 17 percent of intervention participants tested for HIV, compared to 7 percent of participants in the control group. In addition, participants in the intervention group remained highly engaged in group discussions throughout the duration of the study compared to the control group. The authors concluded that an almost three-fold increase in HIV testing rate between the intervention and control group participants, and a 90 percent retention rate in the intervention group, suggest that peer-mentored social media interventions can be an efficient way of increasing HIV testing among MSM in Peru.

[View Abstract](#)



## **Structural Interventions**

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### **Population-Based Study of Food Insecurity and HIV Transmission Risk Behaviors and Symptoms of Sexually Transmitted Infections among Linked Couples in Nepal**

Tsai, A. C., Weiser, S. D. *AIDS and Behavior* (November 2014), Volume 18, Issue 11, pp. 2187-2197.

The authors used nationally representative data on 2,322 linked couples (men and women in the same household) from the 2011 Demographic and Health Survey in Nepal to assess how food insecurity may affect HIV transmission risk behaviors or symptoms of sexually transmitted infections (STIs) such as recent condom use, consistent condom use, and self-reports of an abnormal genital discharge or genital sore or ulcer within the previous 12 months. Bivariate analysis showed that women in severe, mild, or moderate food insecurity categories had statistically significant associations with self-

reported abnormal vaginal discharge and vaginal sores or ulcers. However, only women in severely food-insecure households were less likely to report recent condom use and consistent condom use compared to those in mildly or moderately food-insecure households. Among men, none of the food insecurity categories had a statistically significant association with any of the outcomes under study. The study showed that women and men are differently affected by food insecurity, as evidenced by higher HIV transmission risk behaviors and symptoms of STIs among women, but not men, in food-insecure households. The authors concluded that interventions to improve food insecurity can contribute to reduced HIV and STI transmission among women in Nepal.

[View Abstract](#)

### **Partner Age Differences and Concurrency in South Africa: Implications for HIV-Infection Risk among Young Women**

Maughan-Brown, B., Kenyon, C., & Lurie, M. N. *AIDS and Behavior* (December 2014), Volume 18, Issue 12, pp. 2469-2476.

The authors collected data on age-disparate partnerships (defined as heterosexual partnerships in which the woman is five or more years younger than her male partner) and concurrent relationships (defined as any temporal overlap of one or more sexual partnerships) from 7,476 South African participants aged 16–49 years (3,530 men and 3,946 women). The authors collected data on participants' three most recent sexual partners (including dates of first sex, last sex, and anticipated future sex), distinguishing between partnerships with age disparities of  $\geq 5$  years and  $\geq 10$  years. Data analysis showed that a significant proportion (43 percent) of 16- to 49-year-old women were in partnerships with a man five or more years older. Among young women (ages 16–24), about one-third of recent sexual contact involved a man five or more years older, and 7 percent involved a man 10 or more years older. Further, among women aged 16–24 years, male partners five or more years older were more likely to have concurrent female partners. The authors concluded that younger women are more likely to be in concurrent male partnerships (that is, the male partner has another female partner) and age-disparate relationships, which increases their risk of HIV transmission by connecting them to larger and older sexual networks.

[View Abstract](#)

### **Stepping Stones and Creating Futures Intervention: Shortened Interrupted Time Series Evaluation of a Behavioral and Structural Health Promotion and Violence Prevention Intervention for Young People in Informal Settlements in Durban, South Africa**

Jewkes, R., Gibbs, A., Jama-Shai, N., et al. *BMC Public Health* (December 2014), E-publication ahead of print.

Stepping Stones was a participatory intervention designed to strengthen HIV prevention and relationship skills, conducted in rural Eastern Cape province of South Africa. The project's results indicated a 38 percent reduction in male self-reported violence against women, but women's reported experience of violence did not diminish. The authors of this study investigated whether combining Stepping Stones with Creating Futures, an intervention to enhance the livelihoods of young women and men without microfinance or cash transfers, could reduce gender-based violence against women. The authors recruited 232 out-of-school young people aged 18 to 34 from two urban settlements.

Participants attended 10 Stepping Stones learning sessions and 11 three-hour Creating Futures learning sessions, where they discussed using existing local resources to improve their livelihoods. The findings showed improvements in reported earnings among both men and women. The authors also noted that the combined intervention led to improved attitudes toward gender among men and women, and reductions in men's controlling behaviors toward female partners. In addition, women reported experiencing less sexual and/or physical intimate partner violence. The authors concluded that combining the two interventions can strengthen livelihoods, improve gender relationships, and reduce violence against women in South Africa's informal settlements.

[View Abstract](#)

### **Factors Enhancing Utilization of and Adherence to Prevention of Mother-to-Child Transmission (PMTCT) Service in an Urban Setting in Kenya**

Murithi, L. K., Masho, S. W., & Vanderbilt, A. A. *AIDS and Behavior* (November 2014), E-publication ahead of print.

This study investigated enabling social, structural, and individual factors that increased utilization of and adherence to prevention of mother-to-child transmission (PMTCT) services among HIV-positive women with HIV-negative infants, and examined the reasons for success as explained by the women themselves. Fifty-five women completed a structured interview, and a subset of 15 women participated in in-depth interviews. The findings pointed to four key factors in successful PMTCT: supportive counseling; striving for motherhood (desiring children); assurance of confidentiality; and confirmation, affirmation, and admiration. *Supportive counseling* was by far the most important factor in influencing the women's decision to test for HIV, disclose their status, initiate antiretrovirals, and discontinue breastfeeding at six months. For women who were *striving for motherhood*, adherence to PMTCT programs made it possible to ensure that their infants were born HIV-negative. *Confidentiality* of services was vital: women expressed willingness to travel long distances and endure long waiting times at a clinic offering such services. Women also emphasized *confirmation*, saying that a successful PMTCT experience by a close friend, or even a public figure, helped them with their PMTCT adherence. The authors concluded PMTCT programs should consider these enabling factors, along with attention to access, health education, and functional health care systems, to ensure that women are provided with services that meet their needs.

[View Abstract](#)



## **Epidemiological Interventions**

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### **Trends in HIV Acquisition, Risk Factors and Prevention Policies among Youth in Uganda, 1999–2011**

Santelli, J. S., Edelstein, Z. R., Wei, Y., et al. *AIDS* (January 2015), DOI: 10.1097/QAD.0000000000000533.

This study examined how changes in local conditions and risk factors affected HIV acquisition among youth (adolescents and young adults) in Rakai, Uganda. Using data from 22,164 participants collected from nine Rakai Community Cohort Study survey rounds between March 1999 and June 2011, the

authors compared trends in HIV incidence with trends in previously identified HIV risk factors, social factors, and HIV programs. Overall, the study found significant declines in sexual experience, number of multiple partners, and sexual concurrency among adolescents and young adults. Among adolescent women, HIV incidence decreased by 86 percent between 1999 and 2011; prevalence among all young women declined from 9.1 percent to 6.1 percent. The authors attributed changes in HIV incidence and risk behaviors to several social and environmental factors. These included increases in school enrollment (from 26 percent to 58.9 percent in adolescent women and from 42.6 percent to 65.9 percent in adolescent men); fewer adolescent marriages (from 46.4 percent to 23.7 percent among adolescent women); availability of antiretrovirals; and increased access to medical male circumcision. However, much of the decline in HIV incidence among adolescent women (71 percent) was attributable to reduced sexual experience, which in turn was mainly due to increased school enrollment. The authors called for efforts to increase school attendance as an important component of combination prevention in Uganda.

[View Abstract](#)

### **Sampling Methodologies for Epidemiologic Surveillance of Men Who Have Sex with Men and Transgender Women in Latin America: An Empiric Comparison of Convenience Sampling, Time Space Sampling, and Respondent Driven Sampling**

Clark, J. L., Konda, K. A., Silva-Santisteban, A., et al. *AIDS and Behavior* (December 2014), Volume 18, Issue 12, pp. 2338-2348.

This pilot evaluation compared convenience sampling (CS), time space sampling (TSS), and respondent-driven sampling (RDS) for recruiting and enrolling men who have sex with men (MSM) and transgender women (TW) for epidemiological surveillance in Lima, Peru. A total of 748 participants were recruited through CS, 233 through TSS, and 127 through RDS. The authors reported both advantages and drawbacks for each strategy. CS was effective at recruiting a large number of participants within a brief time and exacted minimal resource requirements. However, CS lacked the statistical representation necessary for population-level estimates of HIV and STI prevalence and associated risk behaviors. RDS recruitment resulted in a large number of non-productive seeds and a small number of recruitment waves, which made it inefficient and potentially not valid in population estimates. TSS was effective in recruiting a large number of participants from previously under-sampled populations over a brief time frame, but was limited by a low rate of participant enrollment. The authors concluded that researchers should take into consideration the characteristics of MSM and TW social networks and community structures when making decisions about which sampling methods to use.

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## Reports, Guidelines, & Tools

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### **A Critical Partnership: The Lifesaving Collaboration between the Global Fund and Faith-Based Organizations**

**Friends of the Global Fight Against AIDS, Tuberculosis and Malaria (December 2014).**

Faith-based organizations (FBOs) are strong partners and important stakeholders in the fight against HIV and AIDS. This guidance was developed to introduce FBOs such as churches, mosques, synagogues, and others to the new funding model of the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). The guidance also describes various ways in which participating FBOs can engage with the Global Fund to build stronger communities and expand their access to civil society groups. Specifically, the guide suggests that FBOs in countries organize as a caucus to develop a comprehensive strategy for prevention, treatment, and care as part of the overall national strategic health plan development process. Additionally, FBOs should engage with their country coordinating mechanism (CCM) to ensure that their constituents are appropriately represented. Interested FBOs can participate actively in the development of concept notes for a particular country-based initiative. Once the country receives the grant, FBOs should continue to engage with the Global Fund on the development of the grant work plan and budget. Because of their broad networks, long-standing community presence, relationships, and knowledge of the local context, FBOs can serve as primary grant recipients or sub-recipients. They can also play a key role in resource mobilization by supporting ongoing advocacy at national and global levels, thus continuing their critical global role in addressing HIV, tuberculosis, and malaria.

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# 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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### **Changing Gender Norms and Reducing Intimate Partner Violence: Results from a Quasi-Experimental Intervention Study With Young Men in Ethiopia**

Pulerwitz, J., Hughes, L., Mehta, M., et al. *American Journal of Public Health* (January 2015), Vol. 105, Issue 1, pp. 132–137.

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**

Kerrigan, D., Kennedy, C., Morgan-Thomas, R., et al. *The Lancet* (January 2015), Vol. 385, Number 9963, pp. 172–85.

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**

Gerberry, D. J., Wagner, B. G., Garcia-Lerma, J. G., et al. *Nature Communications* (December 2014), doi: 10.1038/ncomms6454.

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.

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## **Behavioral Prevention**

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

Hammett, T. M., Phan, S., Nguyen, P., et al. *Journal of Acquired Immune Deficiency Syndromes* (December 2014), doi: 10.1097/QAI.0000000000000512.

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

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

Ediau, M., Matovu, J., Byaruhanga, R., et al. *Journal of the International AIDS Society* (2015), Vol. 18, Number 1, pp. 1–7.

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.

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

Humphries H., van Rooyen, H., Knight, L., Celum, C. *Culture, Health and Sexuality* (January 2015), pp. 1–12, E-publication ahead of print.

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.

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

Jewell, B. L., Cremin, I., Pickles, M., et al. *PLOS ONE* (January 2015), doi: 10.1371/journal.pone.0115511. eCollection 2015. 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/ $\mu$ l; 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**

Shayo, E. H., Våga, B. B., Moland, K. M., et al. *International Breastfeeding Journal* (December 2014), doi: 10.1186/s13006-014-0024-3.

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.

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## Combination Prevention

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

Bekker, L-G., Johnson, L., Cowan, F., et al. *The Lancet* (January 2015), Vol. 385, Number 9962, pp. 72 – 87.

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.

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

Denno, D. M., Hoopes, A. J., and Chandra-Mouli, V. *Journal of Adolescent Health* (January 2015), doi: 10.1016/j.jadohealth.2014.09.012.

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

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

Wamoyi, J., Mshana, G., Mongi, A., et al. *Reproductive Health* (December 2014), doi: 10.1186/1742-4755-11-88.

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**

Mathur, S., Wei, Y., Zhong, X., et al. *Journal of Acquired Immune Deficiency Syndromes* (January 2015), E-publication ahead of print.

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**

Sgaier, S. K., Anthony, J., Bhattacharjee, P., et al. *Global Health: Science and Practice* (November 2014), doi: 10.9745/GHSP-D-14-00141.

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

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

Abdool Karim, Q., Kharsany, A., Leask, K., et al. *Sexually Transmitted Infections* (December 2014), doi: 10.1136/sextrans-2014-051548.

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.

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## Reports, Guidelines, & Tools

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### An Action Agenda for HIV and Sex Workers

Beyrer, C., Crago, A-L., Bekker, L-G., et al. *The Lancet* (January 2015), Vol. 385, Number 9964, pp. 287 – 301.

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.

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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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# AIDSFree Prevention Update

April 2015



This is the April 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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### Conference on Retroviruses and Opportunistic Infections (CROI)

CROI Foundation and International Antiviral Society, Seattle, Washington (February 23 – 26, 2015).

The annual Conference on Retroviruses and Opportunistic Infections (CROI) brought together top basic, translational, and clinical researchers from around the world to share the latest studies, important developments, and best research methods in the ongoing battle against HIV and related infectious diseases. CROI is a global model of collaborative science and the premier international venue for translating basic and clinical investigation into clinical practice in the field of HIV and related viruses. Researchers presented new, globally important data on three oral pre-exposure prophylaxis (PrEP) trials and findings from the Follow-on African Consortium for Tenofovir Studies (FACTS 001) on tenofovir microbicide gel. All three PrEP trials showed high rates of consistent use and very high rates of protection against HIV infection, while the FACTS 001 trial of 1 percent tenofovir gel found low adherence and no protection. The conference also included presentations on evolving knowledge and practice in the areas of medical male circumcision, and on prevention, treatment, and diagnosis of pediatric HIV infections. In addition, several conference sessions presented programmatic experience on how to scale up existing interventions and demonstrate impact.

Webcasts, abstracts, electronic posters, and other electronic resources from CROI 2015 are now available online [here](#).

See major conference outcomes below:

- [Pre-exposure Prophylaxis \(PrEP\) Stops 86 Percent of HIV Infections in PROUD Study](#)
- [Pre-exposure Prophylaxis also Stops 86 Percent of HIV Infections in Ipergay Study](#)
- [Partners Demonstration Project](#)
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## Tailored Combination Prevention Packages and PrEP for Young Key Populations

Pettifor, A., Nguyen, N. L., Celum, C., et al. *Journal of the International AIDS Society* (February 2015), Vol. 18, Issue 2, Supplement 1, doi: 10.7448/IAS.18.2.19434.

The authors conducted a comprehensive review of the evidence to date on prevention strategies, challenges to prevention, and combination prevention packages for young key populations, defined as men who have sex with men (MSM), transgender persons, people who sell sex, and people who inject drugs (PWID). The study focused specifically on the role of pre-exposure prophylaxis (PrEP) in prevention packages for those under the age of 24, and particularly those under 18 years of age. The authors noted that PrEP could offer highly effective, time-limited primary prevention for adolescents and young key populations, provided that they could access health services and were motivated to use PrEP. However, young key populations face unique challenges to accessing PrEP. For PWID, these challenges included adherence to medications (due to low social support), incarceration, and detoxification. Challenges for young MSM and transgender women included unstable housing, discrimination, and violence; challenges for young sex workers included increased risk of sexual and physical violence from clients and law enforcement, along with social and economic marginalization. The authors concluded that conducting effective PrEP interventions will require addressing structural barriers, such as access to HIV testing, prevention, and care, health services, and PrEP, along with other prevention strategies, including decriminalizing the practices of key populations, reducing stigma and discrimination, and empowering communities.

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## Tenofovir-Based Preexposure Prophylaxis for HIV Infection among African Women

Marrazzo, J. M., Ramjee, G., Richardson, B. A., et al. *The New England Journal of Medicine* (February 2015), Vol. 372, Number 6, doi: 10.1056/NEJMoa1402269.

This randomized, placebo-controlled trial of daily treatment with oral tenofovir disoproxil fumarate (TDF), oral tenofovir–emtricitabine (TDF-FTC), or 1 percent tenofovir (TFV) vaginal gel as pre-exposure prophylaxis against HIV-1 infection enrolled 5,029 women in South Africa, Uganda, and Zimbabwe. Participants were assigned to one of five regimens: oral TDF (300 mg) and TDF-FTC placebo; oral TDF-FTC (300 mg of TDF and 200 mg of FTC) and TDF placebo; oral TDF placebo and oral TDF-FTC placebo; vaginal 1 percent TFV gel; or vaginal placebo gel. The primary analysis included as end points only HIV-1 infections that were acquired after enrollment. The authors reported -49 percent effectiveness with TDF; -4.4 percent with TDF-FTC; and 14.5 percent with TFV gel. TFV was detected in 30 percent, 29 percent, and 25 percent of randomly-selected plasma samples from participants receiving TDF, TDF-FTC, and TFV gel, respectively. The authors concluded that none of the drug regimens evaluated during this study reduced rates of HIV-1 acquisition in an intent to treat analysis and that daily adherence to study products, both oral and vaginal TFV-based formulations, was low. They called for effective and acceptable prevention interventions for women at high risk for sexual acquisition of HIV-1, and stated that more accurate measures were required to estimate product use during biomedical HIV-1 prevention trials.

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## Behavioral Prevention

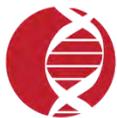
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### **Traumatic Stress and the Mediating Role of Alcohol Use on HIV-Related Sexual Risk Behavior: Results from a Longitudinal Cohort of South African Women Who Attend Alcohol-Serving Venues**

Abler, L., Sikkema, K. J., Watt, M. H., et al. *Journal of Acquired Immune Deficiency Syndromes* (March 2015), Vol. 68, Issue 3, pp. 322–328.

Following a secondary analysis of data from a 2009–2012 study of 560 women patrons of 12 alcohol serving venues in Cape Town, South Africa, the authors developed a model estimating the effects of and interrelationships among traumatic stress, alcohol use, and unprotected sex. Eighty percent of participants reported elevated levels of traumatic stress, and 88 percent reported hazardous alcohol use. The authors' analysis showed that alcohol use was a significant behavioral facilitator that influenced the effect of traumatic stress on sexual risk behavior. Also, women with significant symptoms of traumatic stress (independent of alcohol use) were 82 percent more likely to have unprotected sex than women without traumatic stress. Similarly, high alcohol use was associated with higher rates of unprotected sex, regardless of traumatic stress levels. The authors concluded that women who had both traumatic stress and alcohol abuse were at higher risk for HIV, and that problem drinking exacerbated the relationship between trauma experiences and sexual risk behavior. They recommended that interventions to reduce the impact of alcohol use on HIV risk should be adapted to address both traumatic stress and alcohol use.

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## Biomedical Prevention

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### **Voluntary Medical Male Circumcision Scale-Up in Nyanza, Kenya: Evaluating Technical Efficiency and Productivity of Service Delivery**

Omondi Aduda, D. S., Ouma, C., Onyango, R., et al. *PLOS ONE* (February 2015), doi: 10.1371/journal.pone.0118152. eCollection 2015.

The authors evaluated technical efficiency and productivity of voluntary medical male circumcision (VMMC) facilities in Nyanza province, Kenya. They collected site-level data from 21 randomly sampled facilities, including nine fixed and 12 outreach and mobile locations that provided VMMC services in 2011 and 2012. Using modified national VMMC monitoring instruments and seven variables describing input or output, they assessed the procedures performed, availability of guidelines, supplies and equipment, and continuity of care. Their analysis showed significant improvement in only one of the variables (total elapsed operation time for the VMMC procedure, which decreased from 32.8 minutes in 2011 to 30 minutes in 2012). Additionally, technical efficiency improved from 91 percent in 2011 to 99 percent in 2012, with the greatest gains among the outreach and mobile facilities. The main driver of the productivity increase at these facilities was the acceleration of program activities, which motivated the facilities to provide services more efficiently. The decline in factor productivity (changes in output due to influences beyond traditionally analyzed inputs) among fixed VMMC facilities was most likely due to

the effects of institutional management factors, such as operating environments and staff skills. This study illustrates the need for program planners to understand resource use and sources of variation in VMMC service delivery at the level of individual sites.

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### **Disclosure of HIV Serostatus among Pregnant and Postpartum Women in Sub-Saharan Africa: A Systematic Review**

Tam, M., Amzel, A., and Phelps, B. R. *AIDS Care* (April 2015), Vol. 27, No. 4, pp. 436–450.

The authors conducted a systematic review of articles published between 2001 and 2014 to determine rates of disclosure to partners, family members, friends, and religious leaders by HIV-positive pregnant and postpartum women in sub-Saharan Africa. They also examined the timing of disclosure and factors affecting women’s decisions to share their HIV status. Analysis of the 47 eligible articles, which provided data from 14 countries, showed that 67 percent of the women had disclosed their HIV status to another person, although rates of disclosure varied widely, from 5 percent to 96.7 percent. Women disclosed their status to their sexual partners more often than to other family members, friends, or religious leaders. The majority of women disclosed their status before delivery. Women who disclosed after delivery did so around the period of weaning the infant or resuming sexual activity. Factors increasing the likelihood of disclosure included younger age, first pregnancies, knowing someone with HIV, lower levels of internalized stigma, and lower levels of avoidant coping. The authors concluded by advocating expansion of programs for prevention of mother-to-child transmission (PMTCT) to include partners, family members, and the broader community. This would increase the effectiveness of PMTCT programs while supporting safe disclosure of HIV status by pregnant and postpartum women.

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## **Combination Prevention**

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### **One Size Does Not Fit All: HIV Testing Preferences Differ Among High-Risk Groups in Northern Tanzania**

Ostermann, J., Njau, B., Mtuy, T., et al. *AIDS Care* (January 2015), doi: 10.1080/09540121.2014.998612, pp. 595-603.

This study assessed the HIV testing preferences of female bar workers and male Kilimanjaro porters, two important high-risk groups in the Kilimanjaro Region of Tanzania. The authors used direct assessment and discrete choice experiment (DCE) methods to identify the HIV testing preferences of 162 bar workers and 194 porters, and compared them to 486 randomly selected community members. They found that bar workers, who are required to participate in a municipality-mandated health screening program, had significantly higher rates of HIV testing within the past year compared to female community members (59.3 percent versus 37.9 percent), while testing rates among porters versus males in the community were similar (25.1 percent versus 20.6 percent). Bar workers were less likely than other female community members to report a preference for home testing over facility-

based testing (23 percent versus 68.6 percent). Both methods showed that porters preferred testing in venues where antiretroviral therapy was readily available (42.4 percent versus 59.4 percent in the general male population). Additionally, bar workers and porters were more likely to travel longer distances for testing compared to their community counterparts. The authors highlighted the differences in testing preferences between high-risk populations and others in the community, and called for better alignment of HIV testing services with the preferences of key populations.

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### **Providing Comprehensive Health Services for Young Key Populations: Needs, Barriers and Gaps**

Delany-Moretlwe, S., Cowan, F. M., Busza, J., et al. *Journal of the International AIDS Society* (February 2015), Vol. 18, Issue 2, Supplement 1, doi: 10.7448/IAS.18.2.19833.

This review summarized the health needs of young key populations (YKPs) aged 10–24, including sexual and reproductive health, mental health, violence, and substance use problems, and barriers to care for young sex workers, men who have sex with men, transgender people, and people who inject drugs. The findings from the 110 eligible articles demonstrated, overall, that YKPs experienced a higher burden of disease relative to both older key population members and their age peers in the general population. For example, younger sex workers are less experienced in condom negotiation than older sex workers and thus, are more vulnerable to forced sex without a condom. In addition, stigma, discrimination, social exclusion, and victimization contributed to higher rates of mental health problems in YKPs compared to their peers in the general population. Barriers to care for YKPs occur at the individual, health system, and structural levels; these include low levels of education and HIV knowledge or risk perception, concerns about privacy and confidentiality, lack of “youth-friendly” facilities, and the requirement, in many countries, of parental permission to access testing, treatment, or procedures. The authors concluded that programming for YKPs requires comprehensive, integrated services that respond to their specific developmental and health needs, along with educational and social services within the context of a human rights-based approach.

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### **HIV Testing and Linkage to Services for Youth**

Kurth, A. E., Lally, M. A., Choko, A. T., et al. *Journal of the International AIDS Society* (February 2015), Vol. 18, Issue 2, Supplement 1, doi: 10.7448/IAS.18.2.19433.

In both low- and high-income countries, HIV testing is an important entry point for primary and secondary prevention, as well as care and treatment for young people, including young key populations (YKPs). The authors of this paper discussed critical issues for young people, including YKPs, along the HIV testing-prevention-treatment continuum. They noted that existing school-based HIV education does not always encourage youth to seek testing, and there are few youth-friendly facilities available. In most countries, minors require consent from parents or guardians for HIV testing, and providers deny unaccompanied adolescents an HIV test. Youth who discuss testing with their parents are more likely to test for HIV. However, young people often rightfully fear negative reactions from parents and providers, and also from schools, where they fear isolation and missed opportunities and employment prospects, if they are known to be HIV positive. In some communities, women cannot give consent without the

consent of family members. The authors suggested making testing venues more youth-friendly, and monitoring promising new approaches, such as self-testing, to assess how well they work for youth. They also recommended that, in general, HIV testing venues encourage empathetic and professional health provider behaviors, including assurance of confidentiality about test results, and social and clinical support for those testing positive for HIV.

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## Structural Prevention

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### Scaling-Up HIV Responses with Key Populations in West Africa

Wheeler, T., Wolf, R. C., Kapesa, L., et al. *Journal of Acquired Immune Deficiency Syndromes* (March 2015), Issue 68, Supplement 2, pp. S69-S73.

HIV prevalence among men who have sex with men in West and Central Africa (WCA) is between 13.5 percent and 25.3 percent, and prevalence among female sex workers is at least eight times higher than in the general population; there are very few studies on people who inject drugs and transgender women. However, HIV responses in most WCA countries do not focus on key populations. This article summarized new studies that improve understanding of the HIV epidemic in WCA's key populations and recommended ways to target these populations effectively with HIV services. The authors stressed that all WCA countries should define a specific key population strategy within their national HIV strategic and operational plans. This approach should include soliciting inputs from members of key populations who can fill gaps in data to inform the response. Interventions for key populations should be comprehensive, including both immediate access to HIV and other health services and interventions to address structural issues, such as violence and community empowerment. Budgetary and other resources should be prioritized to address the disproportionate burden of HIV and poor access to services among key populations. The authors emphasized the importance of ensuring development of human rights-based policies, access to HIV services, and organizational development as critical strategies for addressing HIV in these populations.

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### Adolescent Girls and Young Women: Key Populations for HIV Epidemic Control

Dellar, R. C., Dlamini, S., Karim, Q. A. *Journal of the International AIDS Society* (February 2015), Vol 18, Issue 2, Supplement 1, doi: 10.7448/IAS.18.2.19408.

This article urged attention to girls and young women as critical populations within the HIV epidemic. Young women are at increased risk for HIV acquisition for many reasons: age-disparate and intergenerational sexual relationships, early sexual debut, limited schooling, food insecurity, loss of a family member, and gender-based violence. Additionally, younger women are more biologically susceptible to HIV infection compared to older women. Some programs have demonstrated success in improving young women's HIV knowledge and attitudes and uptake of HIV testing. For example, a recent randomized controlled cash transfer trial in Lesotho of financial incentives reduced the

probability of acquiring HIV by 25 percent over two years. School and community-based education programs are commonplace in many settings, but the few that were evaluated did not demonstrate efficacy in preventing HIV infection. The authors stressed that action is needed to mobilize and empower this key population to mediate their own risk, especially for those women who cannot negotiate monogamy, condom use, or male circumcision with their sexual partners. Efforts should focus on the development of new biomedical, structural, and behavioral HIV prevention programs for this group. The authors also recommended including adolescents in biomedical HIV prevention trials, and providing accessible and integrated sexual and reproductive health and HIV prevention services for this population.

[View Abstract](#)

### **Estimating the Effect of Intimate Partner Violence on Women's Use of Contraception: A Systematic Review and Meta-Analysis**

Maxwell, L., Devries, K., Zions, D., et al. *PLOS ONE* (February 2015), doi: 10.1371/journal.pone.0118234. eCollection 2015. Studies from a number of countries have demonstrated that intimate partner violence (IPV) is associated with negative women's reproductive health outcomes, specifically those linked to contraceptive use, such as rapid repeat pregnancy, unintended pregnancy, pregnancy termination, and HIV infection. The authors of the study conducted a systematic review to estimate the causal effect of IPV on contraceptive use. Analysis of the 12 eligible articles showed that, overall, IPV had an impact on women's use of contraception. IPV was associated with a decrease in women's use of partner-dependent methods; women who experienced IPV were less likely to report that their male partners used condoms than women who did not. However, the authors also noted that the specific context influenced the association between IPV and contraceptive use. In Nicaragua, for example, open access to contraceptive methods and the wide cultural acceptability of contraception may mean that women who experience IPV are **more** likely to use contraception than women who do not. The authors concluded that more research was needed to define the relationship between IPV and women's use of modern contraceptive methods so as to better understand women's adoption of contraception. Additionally, because sexual and physical IPV can affect contraceptive use differently, the authors called for new research to clarify these effects.

[View Abstract](#)



### Prevalence of Sexually Transmitted Infections Including HIV in Street-Connected Adolescents in Western Kenya

Winston, S. E., Chirchir, A. K., Muthoni, L. N., et al. *Sexually Transmitted Infections* (February 2015), doi: 10.1136/sextrans-2014-051797.

This study characterized the sexual risk behaviors of street-connected children and youth (SCCY) (children who spend their days or nights on the streets) in Eldoret, Kenya and analyzed the gender disparities of these risks to estimate the prevalence of and factors associated with sexually transmitted infections (STIs), including HIV. The study enrolled 200 participants between the ages of 12 and 21. Participants completed structured interviews detailing their sociodemographics, street life, risk behaviors, abuse and exploitation, and access to reproductive health care. All participants self-collected vaginal and rectal swabs. Because all HIV-positive participants were female (15 percent of all participants), the authors analyzed only factors associated with HIV in females. More than a quarter of adolescents in this study had at least one STI, and young women were again disproportionately affected (35 percent with HSV-2, compared to 27.1 percent among women aged 20–24 years nationally). The authors also found that the SCCY were engaged in high-risk sexual behaviors, including early sexual debut, multiple partners, transactional sex, and inconsistent condom use. Young women were at particularly high risk, reporting significantly more forced sex, transactional sex, and prior STIs. The authors concluded that SCCY in Eldoret, females particularly, were at high risk for STIs and HIV, and called for programmers and implementers to target prevention and education programs specifically to this population.

[View Abstract](#)



### PEPFAR Human Resources for Health Strategy, PEPFAR 3.0

U.S. President's Emergency Plan for AIDS Relief (PEPFAR) (February, 2015).

In February 2015, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) issued its Human Resources for Health Strategy (HRH) 3.0. The strategy is intended to ensure availability of sufficient trained human resources to expand HIV and AIDS services in moderate- and high-volume sites or high HIV burden areas that receive PEPFAR support. PEPFAR's HRH investments will focus on five objectives that directly support PEPFAR's realignment and strategies for achieving an AIDS-free generation:

1. Assess HRH capacity needs for delivering HIV and AIDS services (prevention, care, and treatment) at PEPFAR-supported sites and areas.
2. Support development of an appropriate number and skills mix of health workers to enable delivery of HIV and AIDS services in these locations.

3. Establish recruitment, deployment, and retention strategies to ensure a consistent and sustainable supply of trained health workers.
4. Establish sustainable financing for health workers to ensure adequate local financing for health workers who can provide HIV and AIDS services in PEPFAR sites.
5. Improve health worker performance to build service quality at all PEPFAR-supported sites.

Some activities supporting the implementation of this strategy will be programmed as stand-alone activities; others may be combined within the technical areas of core activities and implementing mechanisms.

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### **AVAC Report 2014/15: Prevention on the Line**

AVAC: Global Advocacy for HIV Prevention (February 19, 2015).

Global Advocacy for HIV Prevention (AVAC) issued its 2015 annual report in February 2015. The first part of the report provides in-depth information on the current state of global targets in HIV prevention, including an in-depth discussion on global targets and a call for advocates to work together to ensure that strategic targets are in place across the spectrum of prevention options. The second part explores resources and actions required to meet these targets. Specifically, the report identifies three recommendations for action:

1. Align high-impact strategies with human rights and realities
2. Invest in a paradigm shift driven by pre-exposure prophylaxis (PrEP)
3. Demand short-term results on the path to long-term goals

The report also provides concise updates and calls to action on key prevention interventions, including HIV vaccines, voluntary medical male circumcision, microbicides, PrEP, and hormonal contraceptive use and HIV risk. This document is intended for use as a roadmap and a basis for discussion about how to advance comprehensive combination prevention—deploying existing tools, demonstrating the potential of emerging strategies, and discovering novel interventions such as an effective HIV vaccine.

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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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# AIDSFree Prevention Update



## May 2015

This is the May 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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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.

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## **PEPFAR 2015 Annual Report to Congress**

The Office of the U.S. Global AIDS Coordinator and Health Diplomacy (March 2015).

The Eleventh Annual Report to Congress of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) was prepared by the Office of the United States Global AIDS Coordinator in collaboration with the U.S. Departments of State, Defense, Commerce, Labor, Health and Human Services, and the Peace Corps. The report outlines PEPFAR's achievements since its enactment in 2003. PEPFAR Phase I focused on emergency response; Phase II emphasized country engagement and sustainability; and the current Phase III focuses on sustainable control of the HIV epidemic. To achieve Phase III goals, PEPFAR will focus on data-driven approaches that target populations with the greatest risk for HIV in geographic areas with the highest HIV burden. The report highlights PEPFAR's achievements in 2014 in voluntary medical male circumcision, comprehensive care for orphans and vulnerable children (OVC), and prevention of mother-to-child transmission, among others. As of September 2014, PEPFAR support provided antiretroviral therapy to 7.7 million people; 14.2 million pregnant women received HIV testing and counseling; and more than 5 million OVC received care and support. The report also outlines PEPFAR's continued collaboration with multilateral organizations, particularly the Joint United Nations Programme on HIV/AIDS, the Global Fund to Fight AIDS, Tuberculosis and Malaria, as well as civil society and faith-based organizations. The report concludes by emphasizing Congress's leadership throughout multiple authorizations of PEPFAR, which is paving the path towards an AIDS-free generation.

[View Report](#) (PDF, 2.2 MB)

## **Effectiveness of an Integrated Intimate Partner Violence and HIV Prevention Intervention in Rakai, Uganda: Analysis of an Intervention in an Existing Cluster Randomised Cohort**

Wagman, J. A., Gray, R. H., Campbell, J. C., et al. *The Lancet* (January 2015), Vol. 3 No. 1, pp. 23–33.

This study assessed whether a combination of intimate partner violence (IPV) prevention and HIV services would reduce IPV and HIV incidence among participants in the Rakai Community Cohort Study (RCCS) in Uganda. Participants in the intervention group (n = 5,337) received standard HIV services plus services through the Safe Homes and Respect for Everyone (SHARE) Project, a community-based mobilization intervention aiming to change attitudes, social norms, and behaviors related to IPV. The project also offers IPV screening and a brief intervention to promote safe HIV disclosure and risk reduction among women seeking HIV counseling and testing services. Control participants (n = 6,111) received standard HIV services only. At the 35-month follow-up, fewer women in the intervention group had experienced physical and sexual IPV compared to the control group. However, the intervention did not reduce women's experiences of emotional IPV. Men's reports of emotional and physical IPV decreased over the course of the trial in both groups, but reported IPV rates at follow-up did not differ significantly. Both women and men in the intervention group reported higher HIV status disclosure rates, including their own and their partners'. The authors concluded that the SHARE approach could reduce

IPV against women and overall HIV incidence, and could also be used within other HIV prevention programs in sub-Saharan Africa.

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### **The Role of Maternal, Health System, and Psychosocial Factors in Prevention of Mother-to-Child Transmission Failure in the Era of Programmatic Scale Up in Western Kenya: A Case Control Study**

Onono, M., Owuor, K., Turan, J., et al. *AIDS Patient Care and STDs* (April 2015), Vol. 29 Issue 4, pp. 204–211, doi:10.1089/apc.2014.0181.

This matched case-control study assessed individual, socio-cultural, and health system factors that contributed to the failure of prevention of mother-to-child transmission (PMTCT) services in an area of Kenya where free PMTCT services were widely accessible. The study enrolled HIV-positive mothers with infants aged six weeks to six months. Cases (n = 50) were mothers of infants with a definitive diagnosis of HIV; controls (n = 135) were mothers of infants testing HIV negative. Participants in both groups completed a questionnaire and had their medical records reviewed by the study staff. The authors found that women who first learned their HIV status during pregnancy were more likely to have HIV-positive infants. These women had difficulty adhering to treatment because of stigma and fear of status disclosure. The study also found that women facing these challenges required more guidance and psychosocial support from providers to help them understand the need to adhere to therapy. The authors concluded that to improve adherence to recommended PMTCT guidelines, providers need to pay closer attention to pregnant women who first learn their HIV status during pregnancy; providers should routinely offer these women additional HIV education and counseling, encourage male involvement, and facilitate safe disclosure of HIV status.

[View Abstract](#)



**Behavioral Prevention**

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### **Acculturation and HIV-Related Sexual Behaviours among International Migrants: A Systematic Review and Meta-Analysis**

Du, H., and Li, X. *Health Psychology Review* (March 2015), Vol. 9 No. 1, pp. 103–122, doi:10.1080/17437199.2013.840952.

This systematic review and meta-analysis of 64 studies examined the associations between acculturation among migrants and HIV-related sexual behaviors, including condom use, multiple partnerships, unsafe sex, and the presence of sexually transmitted infections (STIs). The authors categorized the effects of acculturation by gender, ethnicity, and degree of acculturation (including length of time living in the host culture and language use). They found no associations between acculturation and condom use. However, increased acculturation was positively associated with multiple partnerships, early sexual initiation, STIs, and unsafe sex, with greater risk for women. The authors concluded that acculturation

was a high risk factor for HIV and called for the implementation of culturally appropriate prevention and intervention programs among growing immigrant populations.

[View Abstract](#)



## Biomedical Prevention

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### **Implementation and Operational Research: The Impact of Option B+ on the Antenatal PMTCT Cascade in Lilongwe, Malawi**

Kim, M. H., Ahmed, S., Hosseinipour, M. C., et al. *Journal of Acquired Immune Deficiency Syndromes* (April 2015), Vol. 68 Issue 5, pp. e77–e83.

In 2011 the Malawian Ministry of Health implemented Option B+, which offers all HIV-positive pregnant and breastfeeding women lifelong antiretroviral therapy (ART), regardless of their clinical status or CD4 count. Using routinely collected patient-level data for pregnant women, the authors compared the provision and uptake of antenatal service for prevention of mother-to-child transmission (PMTCT) during two 18-month periods before and after the rollout of Option B+ (13,926 and 14,532 women, respectively). The findings showed that Option B+ had significantly improved initial enrollment into PMTCT services (68.3 percent of eligible antenatal care clients before Option B+ versus 92.6 percent post-implementation) due to factors such as the same-day initiation of ART (58.4 percent of women began ART on the day of enrollment post-rollout, compared to 4.1 percent pre-rollout). However, despite these improvements, challenges remained: for example, over 15 percent of eligible women still had not initiated ART following implementation of Option B+. Furthermore, there were high rates of withdrawal from the program after initial enrollments, possibly because women did not receive clear counseling on the need to start ART to protect their own health. The authors advocated for innovative approaches for improving uptake, and called for further research to explore why women are not initiating ART.

[View Abstract](#)

### **Hormonal Contraception Does Not Increase Women's HIV Acquisition Risk in Zambian Discordant Couples, 1994-2012**

Wall, K. M., Kilembe, W., Vwalika, B., et al. *Contraception* (February 2015), pii: S0010-7824(15)00071-2, doi: 10.1016/j.contraception.2015.02.004, e-publication ahead of print.

This study investigated the impact of hormonal contraceptive (HC) methods on the risk of HIV acquisition among HIV-negative women who are in sexual relationships with HIV-positive male partners. The authors followed 1,393 serodiscordant couples recruited from a couples' voluntary HIV counseling and testing center in Lusaka, Zambia from 1994 to 2012. Their analysis focused on the association between HC method use (implants, injectables, and oral contraceptive pills) and two outcomes of interest: (1) any incident HIV infection among female partners and (2) incident HIV infection genetically linked to the cohabiting male partner. Using rapid serologic tests conducted every three months, the authors determined that 252 study couples seroconverted over 2,841.9 couple-years of follow-up. After controlling for women's age, literacy, and measures of genital ulceration or inflammation, they found no greater association between HCs and HIV acquisition relative to non-hormonal methods. The authors

concluded that while their study found no association between HC use and HIV acquisition risk in women in serodiscordant relationships, there was a need to increase specific interventions: providing a choice of contraceptive methods to decrease unintended pregnancy; delivering condom counseling for all persons at risk of HIV; and offering couples HIV testing to determine the greatest HIV risk factors for negative adults and support couples' fertility intentions.

[View Abstract](#)

### **How Much Does It Cost to Improve Access to Voluntary Medical Male Circumcision among High-Risk, Low-Income Communities in Uganda?**

Larson, B., Tindikahwa, A., Mwidu, G., et al. *PLOS ONE* (March 2015), doi: 10.1371/journal.pone.0119484.

The mobile voluntary medical male circumcision (VMMC) program in Uganda was established specifically to improve access to VMMC services in more remote, high-risk, and low-income populations. The authors of this study used costing information from routine implementation records to evaluate the costs of VMMC performed in the mobile program and compare these costs to those of procedures performed in a fixed site. They estimated that in 2012, the cost of completing one procedure in the mobile program was US\$60.79 for locations where staff returned to a central site, and \$72.21 for locations where staff camped, compared to \$34 per procedure at a fixed site. The cost of the disposable surgical kit (\$23 in 2012) was the greatest cost in the mobile program—larger than total equipment costs per procedure or total staff salaries. On service days, the mobile program completed 30 procedures (roughly one every 30 minutes during an eight-hour day with two surgeons). The authors concluded that though they are more expensive, mobile VMMC programs help improve access for hard-to-reach, relatively poor, and high-risk rural populations. Additionally, the availability of mobile clinics almost certainly diminishes client costs by reducing out-of-pocket travel expenses, lost time, and associated lost income for clients—all of which are proven barriers to treatment access.

[View Abstract](#)

### **Wimbo: Implications for Risk of HIV Infection among Circumcised Fishermen in Western Kenya**

Ombere, S. O., Nyambedha, E. O., and Bukachi, S. A. *Culture, Health & Sexuality* (March 2015), e-publication ahead of print.

This study investigated the influence of mobility on circumcised fishermen's sexual behavior while traveling in search of fish (locally known as *wimbo*) at three beach settings (Usenge, Uhanya, and Anyanga) and eight villages in Western Kenya. They administered semi-structured questionnaires to 110 circumcised fishermen, and conducted 10 in-depth interviews and four focus group discussions with seven or eight participants each. They found that *wimbo* influenced men's sexual behavior in a number of ways; for example, circumcised men revealed that crew members had at least one or two sexual partners on every beach they moved to, and in most cases, they rarely used condoms or other HIV preventive measures. A key factor influencing men's sexual behavior away from home was the need to find new customers for their fish. Moreover, while the men were away from their non-mobile primary partners and from family and community norms, their partners were likely to engage in temporary sexual relationships. Some men associated VMMC with the belief that condom use and other protective

measures were no longer necessary. The authors concluded that this belief, along with sexual practices associated with wimbo, may explain why rates of HIV infection are increasing among fishing populations despite new interventions to prevent HIV, implying that there is a need for critical adaptations to future HIV prevention programs within this group.

[View Abstract](#)

### **Pregnant Women's Experiences of Male Partner Involvement in the Context of Prevention of Mother-to-Child Transmission in Khayelitsha, South Africa**

Brittain, K., Giddy, J., Myer, L., et al. *AIDS Care* (March 2015), e-publication ahead of print.

The study, conducted at a public-sector antenatal service in Khayelitsha, South Africa, enrolled HIV-positive pregnant women who had a primary sexual partner to examine determinants of high levels of male partner involvement (MPI) and explore women's experiences of MPI during pregnancy. From July to November 2013, the authors interviewed 170 women and conducted two focus group discussions (FGDs) with 16 women. Among interview participants, 74 percent reported having disclosed their HIV status to their partner, but only 54 percent of these women knew their partner's HIV status. Additionally, 70 percent of women reported that their partners provided support for adherence to antiretrovirals (ARVs), but only 35 percent reported that their partners accompanied them to the clinic for antenatal visits. FGD participants suggested that partners could provide support for ARV adherence by giving reminders to take ARVs, bringing ARVs with a glass of water, and picking up ARVs from the clinic. Women supported the idea of a male-friendly facility and suggested that partners be encouraged to attend at least one ANC visit. The authors found that high MPI was associated with cohabitation, disclosure, and high levels of communication about HIV. They concluded that MPI was a feasible approach in this context and called for additional research to clarify factors that promote increased male involvement.

[View Abstract](#)



## **Combination Prevention**

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### **Kganya Motsha Adolescent Centre: A Model for Adolescent Friendly HIV Management and Reproductive Health for Adolescents in Soweto, South Africa**

Nkala, B., Khunwane, M., Dietrich, J., et al. *AIDS Care* (January 2015), Vol. 27 No. 6, pp. 697–702.

This retrospective cross-sectional analysis described HIV testing and prevalence among youth attending the Kganya Adolescent Centre (KMAC), South Africa, and outlined the cascade of care for KMAC's HIV-positive clients. KMAC is a comprehensive HIV management center that works to increase access to HIV care and management for in- and out-of-school adolescents. The study showed that between 2008 and 2012, a total of 11,522 young people (aged 14–24 years) and young adults (25+ years) were tested for HIV at KMAC, the majority (67 percent) female. Of those, 410 (3.6 percent) tested HIV-positive. Of these, 109 (27 percent) had their CD4 cell count measured, and 12 (11 percent) were referred for antiretroviral treatment; 41 participants (25 percent of youth) did not return for their CD4 count results. More young women than young men were HIV-positive (4 percent versus 2 percent). These findings showed that a

large number of young people testing positive for HIV were not initiated into care. Reasons for non-retention included stigma, denial, and inability to cover transportation costs. The authors concluded that reaching HIV-positive adolescents but failing to retain them in care defeated the objective of the KMAC program, adding that the program needed to establish proper linkages to ensure that HIV-positive youth can succeed in obtaining care.

[View Abstract](#)



## Structural Prevention

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### **Evaluation of the Impact of a Mobile Health System on Adherence to Antenatal and Postnatal Care and Prevention of Mother-to-Child Transmission of HIV Programs in Kenya**

Mushamiri, I., Luo, C., Iiams-Hauser, C., and Ben Amor, Y. *BMC Public Health* (December 2015), doi: 10.1186/s12889-015-1358-5.

This study analyzed the impact of a mobile health tool that uses text messages to coordinate community health worker (CHW) activities in antenatal care (ANC), postnatal care (PNC), and prevention of mother-to-child transmission of HIV (PMTCT); and assessed end-user health-seeking behaviors. The authors interviewed 67 pregnant women and new mothers and 20 CHWs about the tool, called the ANC/PMTCT Adherence System (APAS), and analyzed 650 health registers. They found that women enrolled in the APAS were three times more likely to undergo the four recommended ANC visits compared to women who were not enrolled. Enrollment in APAS also increased the likelihood that women would attend the six recommended post-delivery follow-up visits—leading to a 0 percent transmission rate at both the 9-month and 18-month follow-up visits. For CHWs, a major benefit of the APAS was the ability to send text-message updates on appointments to the clients. The authors concluded that using a combination of CHW programs and text messages not only strengthened adherence to ANC and PNC, but also allowed communities that were well integrated into the primary health system to move closer to the goal of eliminating vertical HIV transmission in PMTCT programs.

[View Abstract](#)

### **Effects of a Social Network HIV/STD Prevention Intervention for MSM in Russia and Hungary: A Randomized Controlled Trial**

Amirkhanian, Y. A., Kelly, J. A., Takacs, J., et al. *AIDS* (March 2015), Vol. 29 Issue 5, pp. 583–593.

This study assessed the impact of social network interventions on sexual risk behavior among men who have sex with men (MSM). Between 2007–2012, the authors recruited 626 high-risk MSM from 18 networks (10 networks in Russia and 8 in Hungary) and randomized entire networks to receive either voluntary HIV counseling and testing (HTC) for sexually transmitted infections (STIs) and HIV alone, or HTC in addition to a social network intervention. The social network intervention included training and guidance to help network leaders advise members on HIV prevention. All participants completed self-administered behavioral questionnaires three months after the intervention, and both behavioral assessment and repeat HIV/STI testing at 12-month follow-up. Among intervention participants, the proportion who

engaged in any unprotected anal intercourse (UAI) declined from 54 percent at baseline to 38 percent at the three-month follow-up and 43 percent at 12-month follow-up, whereas UAI incidence among comparison participants was largely unchanged. Additionally, the proportion of men who engaged in UAI with a non-primary sexual partner declined significantly in intervention networks (from 18 percent at baseline to 9 percent at 12 months) while again remaining almost unchanged among comparison networks. The authors concluded that MSM could be reached with prevention messages through their social networks, even in environments where same-sex behavior was highly stigmatized.

[View Abstract](#)

### **Lack of Sexual Minorities' Rights as a Barrier to HIV Prevention among Men Who Have Sex with Men and Transgender Women in Asia: A Systematic Review**

Anderson J. E., and Kanters, S. *LGBT Health* (March 2015), Vol. 2 Issue 1, pp. 16-26, doi:10.1089/lgbt.2014.0024.

The authors of this study developed a tool, the Sexual Orientation and Gender Identity (SOGI) Human Rights Index, to assess the relationship between human rights for sexual minorities in Asian countries and indicators of HIV prevention among men who have sex with men (MSM) and transgender women (TGW), with scores ranging from 0.0 to 1.0 (highly punitive to full recognition). They conducted a meta-analysis of 237 epidemiological and behavioral studies from 22 countries in Asia and calculated the SOGI Human Rights score for each country. Analysis showed that a change in SOGI Human Rights score from 0.0 to 1.0 had better indicators for HIV prevention efforts targeting MSM—specifically, lower proportions of MSM who engaged in unprotected anal intercourse, and greater proportions of MSM who had been tested for HIV recently and had adequate HIV knowledge. Moreover, countries that were supportive, such as Thailand, had established men's health clinics and services for MSM and TGW. The authors concluded that there was a strong correlation between human rights and indicators of HIV prevention, and called for increased efforts to ensure the human rights of marginalized populations.

[View Abstract](#)

### **Feasibility and Effectiveness of Two Community-Based HIV Testing Models in Rural Swaziland**

Parker, L., A., Jobanputra, K., Rusike, L., et al. *Tropical Medicine and International Health* (March 2015), doi: 10.1111/tmi.12501, e-publication ahead of print.

This study compared the costs of home-based versus mobile-based HIV testing and counseling (HBHTC and MHTC, respectively) and described the populations reached through each method. The authors reviewed HIV test records for 2,034 people tested through MHTC and 7,026 tested through HBHTC. They found that HBHTC was significantly cheaper than MHTC (US\$11 per person tested versus \$24, respectively). The study showed that the two models reached different populations. HBHTC reached a greater proportion of children and adolescents (<20 years) compared to MHTC (57 percent versus 17 percent) and adolescents (27 percent versus 12 percent). By contrast, MHTC outperformed HBHTC in reaching those aged 20 or older (83 percent versus 43 percent). Among adults, more men were tested by MHTC than HBHTC (42 percent versus 39 percent). Of the adults tested through HBHTC, 34 percent were testing for the first time—significantly higher than for MHTC (22 percent). The study showed no difference in linkage to care between the two testing strategies or between men and women. However, linkage to

care was highest for children and older individuals and lower for individuals aged 20–39 years. The authors concluded that both HBHTC and MHTC are feasible and affordable ways to improve HTC coverage in high-prevalence settings, adding that strategies to ensure linkage to care are indispensable.

[View Abstract](#)



**Epidemiology**

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### High HIV Prevalence and Incidence among MSM across 12 Cities in India

Solomon, S. S., Mehta, S. H., Srikrishnan, A. K., et al. *AIDS* (March 2015), Vol. 29 Issue 6, pp. 723–731.

This study, one of the largest population-based studies among men who have sex with men (MSM) conducted in India, focused on prevalence, incidence, and associated correlates of HIV among MSM in 12 Indian cities. Participants included 12,022 self-identified men over age 18 who reported oral and/or anal intercourse with a man during the prior year. The analysis showed a 7 percent weighted HIV prevalence in MSM across all sites. Syphilis prevalence ranged from 0.8 percent to 4.4 percent. The study found higher odds of HIV infection among men who were older, were currently married, practiced only receptive or both receptive and penetrative sex, had a lifetime history of sexually transmitted infections, or had more lifetime male partners. Higher education was associated with decreased odds of HIV infection. The analysis also showed an overall HIV incidence of 0.87 percent among MSM. In multivariate analyses, men who had a larger number of male partners, or who had herpes simplex 2 infections, syphilis, or genital discharge, had a significantly higher chance of acquiring a new HIV infection. The authors noted that discordance between HIV prevalence and incidence in some cities may suggest emerging HIV epidemics in areas previously described as having a lower HIV burden, and called for targeted prevention programming in these areas.

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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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# AIDSFree Prevention Update



## June 2015

This is the June 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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## Addressing HIV Risk in Adolescent Girls and Young Women

Fleischman, J., & Peck, K. A. Report of the Center for Strategic and International Studies (CSIS) Global Health Policy Center (April 2015).

In eastern and southern Africa, girls account for 80 percent of new HIV infections among adolescents, and HIV and AIDS is the main cause of death among girls aged 15–19 years. The \$210 million Determined, Resilient, Empowered, AIDS-Free, Mentored, and Safe (DREAMS) Partnership seeks to address HIV risks among adolescent girls and young women in 10 countries in eastern and southern Africa. The goal of DREAMS is to reduce HIV incidence in high-burden areas by 25 percent in two years, and by 40 percent in three years. The authors of this paper described examples of innovative programs and new strategies for reaching these populations, such as cash transfer programs and improved access to integrated HIV and family planning services—programs that have proven to be effective in reducing HIV-related risk behaviors and HIV prevalence among adolescent girls. The article also highlighted challenges for these programs, especially operationalization, measurement, and sustainability. The authors stressed the importance of engaging adolescent girls and young women in program design and implementation. They also argued that DREAMS would require the involvement of a wider range of government stakeholders to facilitate the development and implementation of comprehensive interventions, including activities to create safe spaces and prevent gender-based violence.

[View Full Report](#)

## Risk of Death among Those Awaiting Treatment for HIV Infection in Zimbabwe: Adolescents Are at Particular Risk

Shroufi, A., Ndebele, W., Nyathi, M., et al. *Journal of the International AIDS Society* (February 2015), Vol. 18 Issue 1, doi: 10.7448/IAS.18.1.19247, eCollection 2015.

This retrospective cohort study showed that adolescents seek care for HIV at a later clinical stage compared to adults, and face greater risk of death while awaiting initiation of antiretroviral therapy (ART). The study population comprised 1,382 adolescents aged 10–19 years and 7,557 adults (including both treatment-naïve and ART-experienced patients) who registered in an ART clinic in Zimbabwe between April 2004 and December 2010. Analysis showed that adolescents were more likely than adults to register for ART at a later stage of the disease (83 percent versus 73 percent), and that the median wait for ART initiation was longer for adolescents than for adults (21 days versus 15 days). For eligible patients who did not start ART, the mortality rate was significantly higher among adolescents than among adults (3 percent versus 1.8 percent). The authors pointed out that earlier identification of HIV-positive adolescents would require the development of new interventions, given that current approaches generally fail older children and adolescents. They recommended including adolescents who are not yet eligible for ART within social support models, such as peer support clubs; historically, such clubs have focused on adolescents who have already initiated ART.

[View Abstract](#)

## Sexual Stigma, Criminalization, Investment, and Access to HIV Services among Men Who Have Sex with Men Worldwide

Arreola, S., Santos, G. M., Beck, J., et al. *AIDS and Behavior* (February 2015), doi: 10.1007/s10461-014-0869-x.

The authors of this online survey study investigated the association between access to HIV services and (1) perceived sexual stigma at the individual level; (2) country-level criminalization of homosexuality; and (3) country-level investment in HIV services for men who have sex with men (MSM). A total of 3,340 MSM from 115 countries completed the anonymous online survey. The authors then combined their responses with data gathered from external sources on criminalization of homosexual behavior and country-level investment in HIV services. The study found that MSM had limited access to HIV protection: only 47 percent reported having easy access to condoms; 48 percent reported access to HIV testing; and 29 percent had easy access to lubricants. Of MSM living with HIV (n = 493), 54 percent reported that treatment was easily accessible. The authors reported that an increase in perceived sexual stigma was associated with a significant decrease in access to free condoms and lubricants, HIV testing, and antiretroviral treatment. Reduced access to HIV services was associated with lower levels of country investment in HIV services. The authors concluded that effectively increasing access to HIV services for MSM will require increased funding for HIV services, combined with efforts to decriminalize homosexual behavior and reduce sexual stigma against MSM.

[View Abstract](#)



## Behavioral Prevention

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### Behavioral Interventions to Reduce Sexual Risk Behavior in Adults with HIV/AIDS Receiving HIV Care: A Systematic Review

Laisaar, K-T., Raag, M., Rosenthal, M., and Uusküla, A. *AIDS Patient Care and STDs* (May 2015), Vol. 29 Issue 5, doi:10.1089/apc.2014.0240.

The authors searched electronic biomedical databases and conference abstracts from 1981 to 2013 to identify and synthesize research on individual-level, facility-based behavioral interventions for people living with HIV (PLHIV) to determine their efficacy in reducing sexual risk behavior. The five studies they identified reported widely varying sexual behaviors, since some studies only recruited people who had engaged in sexual acts without condoms during the past three months, while others had no history of recent sexual activity. Overall, the quality of evidence in the included studies was low; only two of the five studies showed low risk of bias. The authors found no evidence on the effect of sexual risk reduction interventions on biological measures, since none of the studies measured the acquisition of hepatitis or sexually transmitted infections. They also found limited evidence that individually administered sexual risk reduction interventions reduced the number of casual sex partners or increased the consistency of condom use in acts posing a risk of HIV transmission. Nevertheless, the authors found that regular interactions between HIV care providers and PLHIV provided valuable opportunities to implement sexual risk reduction interventions to restrain the spread of HIV.

[View Abstract](#)



### **The Impact of Adherence to Preexposure Prophylaxis on the Risk of HIV Infection among People Who Inject Drugs**

Martin, M., Vanichseni, S., Suntharasamai, P., et al. *AIDS* (April 2015), Vol. 29 Issue 7, pp. 819–824.

The 2005–2012 Bangkok Tenofovir Study (BTS), a randomized, double-blind, placebo-controlled study, examined participants' adherence to daily oral tenofovir in an HIV pre-exposure prophylaxis (PrEP) trial; identified factors associated with adherence; and assessed the impact of adherence on the risk of HIV infection among people who inject drugs (PWID). The study took place in 17 Bangkok Metropolitan Administration drug treatment facilities that offer an HIV-prevention package, social services, and medical care. The 2,413 participants attended either daily or monthly visits during which nurses observed participants swallowing the study drug, and participants from both groups initialed a diary, which the authors used to assess adherence. Higher levels of adherence were associated with reduced risk of HIV infection (83.5 percent among participants with at least 97.5 percent adherence, compared to a 48.9 percent reduction overall). Analysis showed better adherence among participants aged 40 years and over, and among women. Participants who had been incarcerated or had injected methamphetamine before enrollment were more likely to report below 95 percent adherence, suggesting poor adherence among some at-risk participants. These findings were consistent with findings from trials among men who have sex with men and HIV-discordant heterosexual couples. The authors suggested that PrEP could provide high levels of protection against HIV for PWID, provided adherence is high.

[View Abstract](#)

### **Informing the Scaling Up of Voluntary Medical Male Circumcision Efforts Through the Use of Theory of Reasoned Action: Survey Findings among Uncircumcised Young Men in Swaziland**

Gurman, T., Dhillon, P., Greene, J., et al. *AIDS Education and Prevention* (April 2015), Vol. 27 No. 2, pp. 153-166.

This study used the theory of reasoned action (TRA) to identify predictors of intention to accept voluntary medical male circumcision (VMMC) among 1,257 men in Swaziland aged 13–29. The TRA framework holds that an individual's beliefs and attitudes influence intention—the closest determinant of any given behavior. The survey respondents were divided into two categories: those with intention (men who reported that they intended to be circumcised within the next six months) and those with no intention (men who reported that they planned to be circumcised after more than six months, or not at all). The study found that the strongest predictors were one's views about whether (or not): sex was more painful for a circumcised man; a Christian man should not be circumcised; and circumcision made penetration more painful. Other strong predictors were having been tested for HIV in the past 12 months and having greater knowledge about the relationship between circumcision and penile cancer, cervical cancer, and sexually transmitted infections. Additionally, social support, specifically support from parents, friends, and sexual partners, was strongly associated with a Swazi man's intention to be circumcised. The authors recommended that interventions address the benefits and risks associated with the procedure, including religious beliefs with regard to VMMC.

[View Abstract](#)

## **Sexual Relationships Outside Primary Partnerships and Abstinence Are Associated With Lower Adherence and Adherence Gaps: Data From the Partners PrEP Ancillary Adherence Study**

Kintu, A., Hankinson, S., Balasubramanian, R., et al. *Journal of Acquired Immune Deficiency Syndromes* (May 2015), Vol 69 Issue 1, pp. 36–43.

The authors enrolled 1,147 HIV-negative individuals in long-term serodiscordant relationships from the Partners Pre-exposure Prophylaxis (PrEP) Study (a randomized placebo-controlled trial of daily oral tenofovir and emtricitabine/tenofovir) in three sites in Uganda to assess the role of sexual relationship on degrees and patterns of adherence to PrEP. The study found that participants who reported sex with only their primary partners were more likely to have 100 percent condom use, compared to those who had sex with both primary partners and other partner(s), and those who had sex only with other partners (79 percent, 33 percent, and 36 percent, respectively). Men were 34 percent more likely than women to be low adherers (defined for this study as < 80 percent condom use). Additionally, participants who reported sex with other partners only, and those who had below 100 percent condom use, had a 50 percent higher chance of having gaps in adherence compared with those who had sex only with primary partners and 100 percent condom use. The authors concluded that people who have multiple partners but are not in polygamous marriages may require additional adherence support during PrEP implementation programs.

[View Abstract](#)

## **"Why Should I Take Drugs For Your Infection?" Outcomes of Formative Research on the Use of HIV Pre-Exposure Prophylaxis in Nigeria**

Idoko, J., Folayan, M. O., Dadem, N. Y., et al. *BMC Public Health* (April 2015), e-publication ahead of print.

The authors conducted 238 telephone interviews, 113 in-depth interviews, and 13 focus group discussions, and used data from 70 online surveys and a consultative meeting with 22 stakeholders, to explore public opinion, community interest, and perceptions about use and acceptability of pre-exposure prophylaxis (PrEP) in Nigeria. Overall, respondents prioritized HIV-serodiscordant couples for PrEP because such couples were considered to be at high risk of HIV infection. Participants identified several challenges to PrEP use and access, especially the potential for stigma associated with use of antiretrovirals, and the likelihood of index partners being women, since most serodiscordant couples are identified through HIV screening of women attending antenatal clinics. In a male-dominated country like Nigeria, this could have significant implications for the uptake and use of PrEP by HIV-negative male partners in serodiscordant relationships. Marital counselling may therefore be necessary at PrEP sites. The authors also identified potential models for delivering PrEP—for example, integrating PrEP into routine outpatient care, which could reduce the potential for stigma. Interviewees also believed that a national PrEP program will only be successful if the government can ensure sustained access to medications.

[View Abstract](#)



## Combination Prevention

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### Evaluating the Effect of HIV Prevention Strategies on Uptake of HIV Counselling and Testing among Male Most-At-Risk-Populations in Nigeria; A Cross-Sectional Analysis

Adebajo, S., Eluwa, G., Njab, J., et al. *Sexually Transmitted Infections* (April 2015), doi: 10.1136/sextrans-2014-051659.

This cross-sectional study evaluated the effects of three strategies to increase the uptake of HIV counseling and testing (HCT) in Nigeria among 1,988 male most-at-risk populations (M-MARPs), such as men who have sex with men (MSM) and people who inject drugs (PWID). In the first strategy (S1), key opinion leaders referred M-MARPs to health facilities for HCT; in the second (S2), opinion leaders referred them to nearby mobile HCT teams; and in the third strategy (S3), mobile M-MARPs' peers conducted the HCT. HCT uptake was 78 percent with S1, 84 percent with S2, and 94 percent with S3. Among M-MARPs who tested HIV-positive, 84 percent, 83 percent, and 98 percent of those reached via S1, S2 and S3, respectively, received their results. Among the first-time testers, S3 accounted for the highest proportion of HIV-positive clients (13 percent) while S2 reported the lowest proportion (3 percent). MSM and PWID reached through S1 and S2 were less likely to accept HCT compared to those reached through S3. The authors concluded that S3 (peer-led HCT) provided the highest impact on the number of M-MARPs reached, the identification of HIV-positive M-MARPs and new testers, and called for interventions to train M-MARPs peers to provide HCT.

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## Structural Prevention

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### Food Insecurity is a Barrier to Prevention of Mother-To-Child HIV Transmission Services in Zimbabwe: A Cross-Sectional Study

McCoy, S. I., Buzdugan, R., Mushavi, A., et al. *BMC Public Health* (April 2015), E-publication ahead of print.

This study examined the relationship between food insecurity (FI) and prevention of mother-to-child HIV transmission (PMTCT). The authors used data from a 2012 cross-sectional survey of mother/caregiver-infant pairs conducted as part of Zimbabwe's Accelerated National PMTCT Program, which was developed to examine HIV transmission patterns for mothers or caregivers aged 16 years or older during pregnancy, delivery, and breastfeeding. The authors found that the degree of FI significantly influenced use of antenatal care (ANC): attendance of at least one ANC visit was 95 percent among women from food-secure households, 94 percent for women with moderate FI, and 92 percent for women with severe FI. Furthermore, women from moderately or severely food-insecure households were significantly less likely to know their HIV status during pregnancy, or labor and delivery, or to deliver in a health facility; and were less likely to report attending the postnatal visit. Overall, completion of all key steps in the PMTCT cascade was reported by 49 percent of women from food-secure households, 45 percent of women with moderate FI, and 38 percent of women with severe FI. The authors concluded that FI may be an important barrier to uptake of some PMTCT services, and called for integrated food and nutrition programs for pregnant women.

[View Abstract](#)

## **"Protect Your Loved Ones From Fataki": Discouraging Cross-Generational Sex in Tanzania**

Kaufman, M. R., Tsang, S. W., Mooney, A., et al. *Qualitative Health Research* (April 2015), E-publication ahead of print. The Fataki campaign (about a girl-chasing older man) aired on Tanzanian radio from 2008 to 2011 and addressed cross-generational sex, a major driver of HIV in the region. The authors conducted individual interviews and focus groups with community members and leaders in Pwani and Iringa regions of Tanzania to assess community reactions to the Fataki campaign, its reach, and how it affected interpersonal communication about cross-generational sex (CGS) two years after the campaign was completed. They found that the Fataki campaign was generally well received; participants commented on the importance of messages about protecting loved ones from CGS. Exposure to the campaign was associated with a higher likelihood of engaging in interpersonal discussions about CGS, and participants reported having discussed CGS and Fataki with other young women as a result of the campaign. Most commonly, discussions focused on encouraging young women to avoid "Fatakis" and to focus on school rather than risk pregnancy because of the cost and value of education. Participants also reported discussing strategies young women could use to avoid Fatakis. These often included approaches modeled in campaign messages, such as refusing offers of rides, money, and gifts from Fatakis. The authors concluded that the Fataki campaign was successful in encouraging interpersonal communication about CGS, and suggested that future campaigns should model both men and girls to avoid such relationships.

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## **Gender and HIV Infection in the Context of Alcoholism in Kenya**

Muturi, N. *African Journal of AIDS Research* (March 2015), doi: 10.2989/16085906.2015.1016986.

This study assessed the perspectives of rural communities on risk factors for HIV infection among women who are in alcohol-discordant relationships with male partners who consume alcohol excessively. The authors conducted seven focus group discussions with 30 men and 30 women aged 27 to 57 years, who were recruited through community-based organizations. Both male and female participants described the severe alcoholism in Central Kenya, especially affecting men aged 15 and older, and exerting widespread impacts on the socioeconomic welfare of rural families. Participants reported that since alcoholism has become widespread, more women are engaging in extramarital relationships. Women in these relationships also engaged in risky sexual practices for economic reasons, since their partners were spending more money on alcohol. An additional consequence of excessive alcohol consumption was the escalation of sexual violence in rural communities, which made women and girls more vulnerable to HIV infection. The authors concluded that considering the widespread prevalence of alcoholism, and the association between alcoholism and HIV infection, there is an urgent need for HIV prevention programs to focus on older married women in rural areas and include remediation measures for alcoholism.

[View Abstract](#)

## **Effects of an Adolescent Sexual and Reproductive Health Intervention on Health Service Usage by Young People in Northern Ghana: A Community-Randomised Trial**

Aninanya, G. A., Debpuur, C. Y., Awine, T., et al. *PLOS ONE* (April 2015), doi: 10.1371/journal.pone.0125267.

The study investigated whether a community-based adolescent sexual and reproductive health intervention in northern Ghana was associated with increased adolescent use of selected reproductive health services. A total of 2,664 adolescents in 26 communities were allocated to intervention or comparison groups. The intervention group (n = 1,288) received a school-based curriculum, out-of-school outreach, community mobilization, and

health worker training in youth-friendly health services, while the comparison group (n = 1,376) received community mobilization and youth-friendly health services training only. Comparison of the baseline (2005) and endline (2008) data showed significantly greater increases in the use of services for sexually transmitted infections (STIs) in the intervention group (from 3 to 17 percent) relative to the control group (from 5 percent to 8 percent). More young men than young women used STI services at endline (64 percent versus 36 percent in the intervention communities and 57 percent versus 36 percent in the comparison communities). Use of antenatal services increased in the intervention group (from 3 percent to 12 percent). Satisfaction with services received increased more among adolescents in intervention communities (from 18 percent to 43 percent) than in comparison groups (from 17 percent to 28 percent). The authors concluded that school-based and peer-outreach interventions were associated with increased service usage and could be used in future programming.

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## Reports, Guidelines & Tools

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### **Double Trouble: Injection Drug Use and Sexual Behaviour**

India HIV/AIDS Alliance, April 2015.

This study described factors that influence vulnerability to sexual transmission of HIV between people who inject drugs (PWID) and their sexual partners, and discussed concerns associated with the delivery of various harm reduction services for these couples. The authors conducted 50 separate interviews and four focus group discussions in two districts in the states of Bihar and Manipur. They reported that PWID remained extremely vulnerable to HIV and other sexually transmitted infections. Stigma was reported as a main barrier preventing access to health services. Many PWID reported difficulties accessing harm reduction centers, such as the inconvenient operating hours of needle and syringe exchange programs, which in turn contributed to risky sharing behavior despite ample risk awareness. The authors also noted that group dynamics and social norms were important drivers of vulnerability in instances when reluctance to inject together (and share equipment) was viewed as suspicious. The research also revealed that female sexual partners of male injectors were often unaware of their partner's HIV status, or felt unable to moderate their risk because of power imbalances in their relationships. This pointed to an urgent need to create effective services that meet the unique needs of women partnered with drug injectors, the authors said. They concluded that programs for PWID must address complex vulnerabilities faced by PWID and their sexual partners.

[View Full Report](#)

### **Tool for Rapid Evaluation of Facility-Level Nutrition Assessment, Counseling, and Support: A User's Guide**

Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) (2015).

The Tool for Rapid Evaluation of Facility-Level Nutrition Assessment, Counseling, and Support (REF-NACS) is a generic tool that helps gather information on the capacity of health facilities to implement NACS for pregnant women, children, and people living with HIV. This tool is designed to stimulate discussions, facilitate an analytic process, and develop a prioritized plan for strengthening NACS services. The results from a REF-NACS assessment will help government policymakers, donors, program managers, service providers, and clients to:

- Understand current service provision and human resource capacity to implement quality NACS services

- Identify gaps in available services
- Identify weaknesses in the health system for implementing a continuum of comprehensive NACS services
- Prioritize interventions and identify actions to strengthen NACS-related programming.

REF-NACS is a flexible tool that can be used in a range of applications—to strengthen existing NACS capabilities, design new programs or services, or take a program to scale. It can be implemented in a sample of health facilities, or in all health facilities where a program plans to work, and is easy to administer with a modest budget.

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# AIDSFree Prevention Update



*July 2015*

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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.

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## Starting Antiretroviral Treatment Early Improves Outcomes for HIV-Infected Individuals

**National Institutes of Health (May 27, 2015).**

Current World Health Organization guidelines for HIV treatment recommend that HIV-positive individuals begin antiretroviral therapy (ART) when CD4+ cell counts fall to 500 cells/mm<sup>3</sup> or less. However, interim findings from the Strategic Timing of Antiretroviral Treatment (START) trial (2011–2016) show that earlier ART initiation reduces the risk of AIDS, other serious illnesses, and death. The trial, implemented in 35 countries, was the first large-scale randomized clinical trial to test the impact of early ART enrollment. The study enrolled 4,685 ART-naive HIV-positive men and women with CD4+ cell counts above 500 cells/mm<sup>3</sup>. Half of the participants were randomized to begin ART immediately; the other half deferred treatment until their CD4+ cell count reached 350 cells/mm<sup>3</sup>. Data from March 2015 identified 41 instances of AIDS, serious non-AIDS events, or death among those enrolled in the early treatment group, compared to 86 events in the deferred treatment group. The interim analysis found that the risk of developing serious illnesses or death was reduced by 53 percent among those in the early treatment group, compared to those in the deferred group. These findings were consistent throughout low-, middle-, and high-income countries and across geographic regions. Though the trial continues through 2016, all participants have been offered treatment based on these findings. The study implementers recommended that all asymptomatic HIV-positive individuals begin antiretrovirals, regardless of CD4+ cell count.

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## Factors Associated with Adherence to Antiretroviral Therapy among Adolescents Living with HIV/AIDS in Low- and Middle-Income Countries: A Systematic Review

**Hudelson, C., and Cluver, L. *AIDS Care* (February 2015), Vol. 27, No. 7, pp. 805–816, doi: 10.1080/09540121.2015.1011073.**

This review summarized findings from 15 quantitative observational studies of factors associated with adolescent adherence to antiretroviral therapy (ART) in 10 low- and middle-income countries (LMICs). The eligible studies included a total of 4,363 participants between the ages of 10 and 19, recruited mainly from pediatric and non-specific hospitals, clinics, and treatment centers. The authors categorized the factors associated with adherence into four broad themes related to the (1) adolescent, (2) caregiver, (3) medication, and (4) physical, social, and/or health care environment. Rates of adherence varied widely across studies, ranging from 16 percent to 99 percent. Analysis showed significant associations between good adherence and lack of awareness of serostatus, previous hospitalizations, younger age, and lack of awareness of caregiver's health problems. By contrast, orphan status, stunted growth, low mental health scores, and sexual activity were correlated with worse adherence across the studies. Adolescents living with married, divorced, or widowed caregivers had significantly better ART adherence than those living with unmarried caregivers. Although their analysis identified specific factors that support ART adherence among adolescents living in LMICs, the authors concluded that more research is still needed to identify the range of influences on ART adherence as these adolescents grow into adulthood.

[View Abstract](#)

## Targeting the SAVA (Substance Abuse, Violence, and AIDS) Syndemic among Women and Girls: A Global Review of Epidemiology and Integrated Interventions

Gilbert, L., Raj, A., Hien, D., et al. *Journal of Acquired Immune Deficiency Syndromes* (June 2015), Vol. 69, Supplement 1, pp. 118–127, doi: 10.1097/QAI.0000000000000626.

The authors examined meta-analytic epidemiology and intervention studies published between 2000 and 2015 that addressed aspects of the substance abuse, violence, and AIDS (SAVA) syndemic among women and girls who use drugs worldwide. Their findings suggested that gender-based violence (GBV), including physical and sexual violence, significantly increased the risk of HIV and other sexually transmitted infections among women and girls who use drugs. The authors noted that experiencing physical and other types of GBV also decreased the likelihood of being tested for HIV and obtaining and staying in HIV care; and increased the likelihood of poor adherence to antiretrovirals among these groups. They suggested several interventions to remediate SAVA: (1) models for screening, a brief intervention, and referral to treatment and services, possibly also integrated with HIV counseling and testing; (2) integrated behavioral and HIV prevention interventions; (3) extended, integrated treatments to address trauma and prevent HIV or promote adherence to medication; and (4) primary prevention models implemented at the community or structural level. The authors concluded that their findings underscore the need for a comprehensive strategy to target the drivers of the SAVA syndemic, particularly in low-income and middle-income countries.

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## Behavioral Prevention

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### Relative Risk for HIV Infection among Men Who Have Sex with Men Engaging in Different Roles in Anal Sex: A Systematic Review and Meta-Analysis on Global Data

Meng, X., Zou, H., Fan, S., et al. *AIDS and Behavior* (May 2015), Vol. 19, Issue 5, pp. 882–889.

The authors of this review examined global data on the relative HIV risk of different modes of anal sex among men who have sex with men (MSM). They analyzed 21 papers published before September 2013 and conducted a meta-analysis of HIV prevalence and relative risk for HIV infection for two time periods: 1981–1985 and 1986–2010. Their analysis showed that men engaging in receptive anal intercourse only (MRAI) were 6.9 and 1.8 times more likely to be HIV-positive in 1981–1985 and 1986–2010, respectively; and 6.2 times more likely to develop incident HIV infection overall, compared to men engaging in insertive anal intercourse only (MIAI) during those time periods. Overall, MRAI and men engaging in both insertive and receptive anal sex were 6.2 and 6.6 times more likely to develop incident HIV infection compared to MIAI. This study is the first to provide concrete data evidence that sexual positioning is significantly associated with HIV transmission among MSM. The authors concluded that despite relatively lower prevalence and incidence of HIV in men engaging in insertive anal sex only, the prevalence and incidence of HIV were invariably high among men engaging in any variation of anal sex.

[View Abstract](#)



### **Understanding Adherence to Daily and Intermittent Regimens of Oral HIV Pre-Exposure Prophylaxis among Men Who Have Sex with Men in Kenya**

Mwangi Mugo, P., Sanders, E.J., Mutua, G., et al. *AIDS and Behavior* (May 2015), Vol. 19, Issue 5, pp. 794–801.

The authors used data from a randomized, placebo-controlled, blinded trial of pre-exposure prophylaxis (PrEP) to evaluate safety, acceptability, and adherence to treatment in men who have sex with men at two centers in Kenya from 2009 to 2010. Sixty-two participants were randomized to receive emtricitabine/tenofovir or the placebo either daily or intermittently (prescription: Mondays/Fridays/after sex, maximum one dose/day), and their adherence was analyzed either according to a "strict" (by prescription) or "relaxed" model. The men were followed for four months. In the multivariate model that combined daily and relaxed adherence (allowing some off-prescription doses), the authors found that lower adherence was significantly associated with frequent travels in the past month, and marginally associated with transactional sex during the past month. In the secondary analysis, which used the strict (per prescription) definition for intermittent adherence, lower adherence was associated with transactional sex in the past month, and longer time in the study (per each additional month of follow-up). Additionally, daily dosing (versus intermittent dosing) and the ability to generate income were associated with higher adherence. The authors concluded that adherence interventions should address challenges related to mobility, sex work, and long-term PrEP.

[View Abstract](#)

### **Risk of HIV-1 Acquisition among Women Who Use Different Types of Injectable Progestin Contraception in South Africa: A Prospective Cohort Study**

Noguchi, L.M., Richardson, B.A., Baeten, J.M., et al. *The Lancet HIV* (May 2015), Vol. 2, Issue 7, doi: 10.1016/S2352-3018(15)00058-2.

The authors used prospective data from the Vaginal and Oral Interventions to Change the Epidemic (VOICE) trial, a randomized, placebo-controlled trial conducted in four African countries, to investigate the safety and efficacy of three formulations of tenofovir for prevention of HIV-1 infection in women. The VOICE trial was implemented from 2009 to 2011, with a 12-month follow-up. For this study, the authors only analyzed data from 3,141 South African participants who used depot medroxyprogesterone acetate (DMPA) and norethisterone enanthate (NET-EN), to assess whether these two injectable progestin-only contraceptives presented different risks of HIV-1 acquisition. Among these women, 1,788 used only DMPA, 1,097 used only NET-EN, and 256 used both injectable types at different times during follow-up. The authors found that during 2,733.7 person-years of follow-up, 207 incident HIV-1 infections occurred (incidence 7.57 per 100 person-years). The risk of HIV-1 acquisition was 50 percent higher among DMPA users than among NET-EN users. Moreover, the increased risk persisted after controlling for important demographic and behavioral factors and in several sensitivity analyses. The authors concluded that NET-EN may be a better alternative drug for DMPA, with a lower HIV risk, and recommended that women who prefer an injectable consider switching from DMPA to NET-EN.

[View Abstract](#)

## Implementation and Operational Research: Uptake of Services and Behaviors in the Prevention of Mother-to-Child HIV Transmission Cascade in Zimbabwe

McCoy, S.I., Buzdugan, R., Padian, N.S., et al. *Journal of Acquired Immune Deficiency Syndromes* (June 2015), Vol. 69, Issue 2, doi: 10.1097/QAI.0000000000000597.

The authors of this study investigated the uptake of services in the cascade of services for maternal and infant prevention of mother-to-child HIV transmission (PMTCT) in 2011–2012 in Zimbabwe; determined factors associated with vertical transmission of HIV; and examined patterns of service use for HIV-exposed infants. They tested 8,800 biological mothers and their eligible infants for HIV infection, and conducted interviews about PMTCT service use. They found that 94 percent of all women attended one or more antenatal care (ANC) visits during pregnancy, and 64 percent attended four or more ANC visits. Among HIV-positive women, 59 percent reported receiving antiretroviral therapy (ART) or antiretroviral (ARV) prophylaxis; and 37 percent reported receiving a CD4 test. Among their HIV-exposed infants, 63 percent received ARV prophylaxis, and 44 percent received cotrimoxazole. Analysis showed that factors associated with receipt of maternal ART or ARV prophylaxis included four or more antenatal care visits, institutional delivery, and disclosure of serostatus. The authors concluded that in contrast to some previous reports, these results suggested that most pregnant and postpartum women are not completely lost from the PMTCT cascade. However, these women do not use services to prevent and treat HIV infection. The authors recommended keeping HIV-positive pregnant and postpartum women in HIV-specific services to prevent vertical transmission in Zimbabwe.

[View Abstract](#)



## Combination Prevention

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### Innovative Strategies for Scale Up of Effective Combination HIV Prevention Interventions in Sub-Saharan Africa

Shanaube, K., Bock, P. *Current HIV/AIDS Reports* (June 2015), Vol. 12, Issue 2, pp. 231–237, doi: 10.1007/s11904-015-0262-z.

This review highlighted key drivers of the epidemic in sub-Saharan Africa (SSA) and discussed innovative strategies for the scale-up of effective combination HIV prevention strategies, with a focus on treatment as prevention. While many countries are implementing combination HIV prevention strategies, extreme rates of poverty, combined with weak health systems and health inequalities, and the failure to prioritize HIV prevention among key populations, continue to drive the epidemic. The authors emphasized that while knowing one's HIV status is the first step in accessing prevention and treatment services, and may positively influence sexual risk behavior, more than half of the people living with HIV in SSA remain undiagnosed. To be effective, interventions addressing behavior change need to be combined with biomedical interventions, such as pre-exposure prophylaxis, voluntary medical male circumcision, and treatment as prevention. The authors emphasized that innovative strategies, such as home-based HIV testing and counseling, could lead to higher service uptake, especially among men. Treatment strategies that expand access into the community may also enhance linkages. The authors concluded that the SSA context requires multiple strategies to (1) expand knowledge of HIV status, and (2) scale up innovative strategies to increase access to counseling, testing, and treatment. They called for strong community leadership to implement and scale up effective combination prevention programs.

[View Abstract](#)



### **Relationship Power, Communication, and Violence among Couples: Results of a Cluster-Randomized HIV Prevention Study in a South African Township**

Minnis, A.M., Doherty, I.A., Kline, T.L., et al. *International Journal of Women's Health* (May 2015), Vol. 11, Issue 7, pp. 51–525, doi: 10.2147/IJWH.S77398.

From June 2010 through April 2012, the authors studied 290 heterosexual couples from a high-HIV-prevalence South African township to examine the effects of HIV prevention interventions on power dynamics within relationships. The first intervention, the Couples Health CoOp (CHC), engaged both men and their female partners; in the second intervention, women received the Women's Health CoOp (WHC), and men received the Men's Health CoOp (MHC). The interventions consisted of two three-hour sessions delivered one week apart by community peer leaders. Sessions included modules on a variety of topics, including alcohol and other drug use, sexually transmitted infections, HIV, safer sex methods, gender roles, effective communication and conflict resolution skills, dealing with stress, and preventing violence. At the six-month follow-up, only CHC participants reported positive changes in power within their relationships. For the second measure of relationship power—equity in shared decision-making—the most substantial improvements occurred in the WHC model. The authors also found that women from MHC/WHC couples were less likely to report experiencing violence during the follow-up period, compared with women in the CHC arm. This study highlighted the need for both gender-separate and joint couples' interventions to address gender-based inequities in settings where women remain at high risk of HIV infection.

[View Abstract](#)

### **A Randomized Controlled Trial to Increase HIV Preventive Information, Motivation, and Behavioral Skills in Ugandan Adolescents**

Ybarra, M.L., Korchmaros, J.D., Prescott, T.L., et al. *Annals of Behavioral Medicine* (June 2015), Vol. 49, Issue 3, pp. 473–485, doi: 10.1007/s12160-014-9673-0.

This study focused on the impact of an Internet-based HIV prevention program, CyberSenga, on information, motivation, and behavioral skills among adolescents. The participants (366 sexually experienced and inexperienced youth aged 13 years and older) were randomly assigned to either the five-week CyberSenga (intervention group), covering topics such as how HIV is contracted, how to reduce HIV risk, motivation to have sex or abstain, and condom use skills, or the treatment-as-usual (control) group receiving the sexual health education offered at their schools. Half of the intervention participants were further randomized to a booster session. Follow-up data were collected at three and six months post-intervention. The authors reported that at six months post-baseline, the control group correctly answered 72.4 percent of HIV prevention-related questions; the intervention-only and intervention+booster groups correctly answered 77.6 percent and 82.8 percent of questions, respectively. Intentions to be abstinent did not change over time for any of the groups. However, at the six-month follow-up, intentions to use condoms became stronger, with the intervention+booster group showing the strongest intentions to use condoms, followed by the intervention-only group. The authors concluded that as the Internet becomes more affordable, and therefore more widely accessible, programs such as CyberSenga have the potential for wide dissemination to reach a greater number of young people.

[View Abstract](#)

## Structural Interventions for HIV Prevention among Women Who Use Drugs: A Global Perspective

Blankenship, K.M., Reinhard, E., Sherman, S.G., and El-Bassel, N. *Journal of Acquired Immune Deficiency Syndromes* (June 2015), doi: 10.1097/QAI.0000000000000638.

The authors provided a global overview of contextual sources of HIV risk among women who use drugs (WWUD) and structural interventions (SIs) to address WWUDs' vulnerability to HIV. They argued that there is a need to modify SIs to meet the needs of WWUDs—for example, engaging more women's peer networks—and identified challenges to policies that affect WWUD disproportionately, if not exclusively. Additions to existing harm reduction programs, such as providing on-site child care; employing female, nonjudgmental staff; offering mobile services; and being located in relatively safe and discreet areas, can make these programs more accessible to women. Additionally, given the potentially harsher consequences to women of revealing their drug use, and their reluctance to interact with men (possibly ensuing from histories of abuse), SIs for WWUD have also involved offering “women-only” hours and services, such as women-only drug treatment programs. The authors suggested that a potentially powerful set of SIs for WWUD could integrate health and social service models, such as “one-stop shops” that enable WWUD to access multiple services at one site. Thus, women could receive a constellation of services at a single site, including harm reduction; screening, treatment, and care for substance use, HIV, tuberculosis, hepatitis, sexually transmitted infections, mental health, trauma, and interpersonal violence; and other physical, social, and emotional health services.

[View Abstract](#)

## Sexually Transmitted Infection Screening Uptake and Knowledge of Sexually Transmitted Infection Symptoms among Female Sex Workers Participating in a Community Randomised Trial in Peru

Kohler, P.K., Campos, P.E., Garcia, P.J., et al. *International Journal of STD & AIDS* (May 2015), E-publication ahead of print.

The authors analyzed the uptake of health screening and preventive behaviors among female sex workers (FSWs) in mid-sized Peruvian cities that were associated with a community randomized trial on preventing sexually transmitted infections (STIs), including HIV. The study interventions included mobile FSW outreach to increase condom use and care-seeking for screening, diagnosis, and treatment of STIs by FSWs. The authors conducted cross-sectional surveys among 4,156 FSW (2,063 from control and 2,093 from intervention cities) at baseline in 2002–2003, during 2005, and at the end of the intervention in 2006. Among FSWs surveyed in 2006, 4 percent in the control arm and 75 percent in the intervention arm reported receiving services from, or ever participating in activities with the mobile study outreach team. FSWs in the intervention group were more likely to report condom use with the last non-client; ever seeking an STI screening exam; ever receiving HIV testing; receiving recent HIV testing; knowledge of STIs; and awareness of female and male STI symptoms. Among intervention participants, there was also a trend towards increased frequency of recent screening exams at a public STI clinic. The authors concluded that mobile outreach and peer services can play a significant role in health promotion interventions for FSWs in Peru.

[View Abstract](#)

## The Case for Addressing Gender and Power in Sexuality and HIV Education: A Comprehensive Review of Evaluation Studies

Haberland, N.A. *International Perspectives on Sexual and Reproductive Health* (March 2015), Vol. 41, Issue 1, pp. 31–42, doi: 10.1363/4103115.

The author reviewed 22 studies on sexuality and HIV education interventions to explore whether including content on gender and power affects programmatic efficacy; and how effective curriculum-based programs have addressed gender and power. Of the 10 studies that included gender and power content, 80 percent led

to significant decreases in at least one of the health outcomes examined (pregnancy, childbearing, or sexually transmitted infections [STIs]). Among the 12 programs that did not address gender and power, by contrast, only two (17 percent) recorded significantly reduced rates of pregnancy or STIs. Additionally, in the 17 studies that included a post-intervention follow-up of one year or longer, 78 percent demonstrated reduced adverse health outcomes, compared to 25 percent of interventions with no follow-up. Clinic-based programs were far more likely to reduce adverse health outcomes than programs implemented in other settings (such as school-based programs). The author noted some common characteristics among all programs, including interactive and learner-centered approaches that focused on gender and power in relationships; fostered critical thinking about how gender norms or power manifest and operate; and promoted valuing oneself and recognizing one's own power. The author concluded that discussion of gender and power should be considered a key characteristic of effective sexuality and HIV education programs.

[View Abstract](#)



## Epidemiology

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### **Global Epidemiology of HIV among Women and Girls Who Use or Inject Drugs: Current Knowledge and Limitations of Existing Data**

Larney, S., Mathers, B.M., Poteat, T., et al. *Journal of Acquired Immune Deficiency Syndromes* (June 2015), doi: 10.1097/QAI.0000000000000623.

The authors conducted a literature review focused on women and girls who use and/or inject drugs to explore risk factors and determine HIV prevalence and mortality rates among these groups. They found that although crude mortality rates were consistently lower among women who use and inject drugs compared with men, standardized mortality ratios were higher among women who use and inject drugs. Their findings suggest that these women experienced relatively greater mortality than their age-matched peers in the broader community compared with men who use drugs. Social exclusion, stigma, and discrimination can increase HIV risk and undermine HIV prevention and treatment programs for this group. These women and girls are reluctant to disclose their drug use and do not access health services, including drug treatment, for fear of discrimination. Moreover, they may be excluded from family support structures, and those with limited financial or employment options may be more likely to engage in sex work, increasing sexual HIV risk and attracting additional stigma. The authors concluded that special efforts (such as stratified sampling) may be needed to recruit women and girls into studies of drug use and HIV prevalence and risk among people who inject drugs, to ensure adequate recruitment of women and improve the reliability of sex-specific prevalence statistics.

[View Abstract](#)



## Reports, Guidelines & Tools

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### WHO Consolidated Strategic Information Guidelines for HIV in the Health Sector

**World Health Organization (May 2015).**

On May 11, 2015, the World Health Organization released new guidelines that recommend simplified annual indicators to measure the reach of HIV services, and the impact achieved at both the national and global levels. The guidelines were developed in partnership with the Global Fund, the Joint United Nations Programme on HIV/AIDS, the United Nations Children's Fund, and the U.S. President's Emergency Plan for AIDS Relief. The guidelines recommend the use of 10 global indicators to collect information along the cascade of HIV care and treatment as a principal way to track national epidemics and responses. These indicators are:

- 1) Number of people living with HIV
- 2) Domestic funding
- 3) Coverage of prevention services
- 4) Number of individuals diagnosed
- 5) HIV care coverage
- 6) Treatment coverage
- 7) Retention in treatment
- 8) Percentage of people in treatment with viral suppression
- 9) Number of HIV deaths
- 10) Number of new infections.

The guide is primarily intended for national health sector staff engaged in the collection, analysis, and use of HIV-related strategic information, including those who set up monitoring and evaluation systems and those who use data to improve programs. It is also intended for stakeholders concerned with developing and analyzing strategic information, including nongovernmental organizations, private-sector care providers, civil society, and academic groups involved in teaching and research.

[View Guidelines](#)

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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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# AIDSFree Prevention Update



## August 2015

This is the August 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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## **UNFPA, WHO and UNAIDS: Position Statement on Condoms and the Prevention of HIV, Other Sexually Transmitted Infections and Unintended Pregnancy**

**United Nations Population Fund, World Health Organization, and Joint United Nations Programme on HIV/AIDS (July 2015).**

The joint position statement issued by the United Nations Population Fund, the World Health Organization, and the Joint United Nations Programme on HIV/AIDS emphasizes the critical role of condoms in any comprehensive and sustainable approach to the prevention of HIV, other sexually transmitted infections (STIs), and unintended pregnancies. Consistent and correct use of both female and male condoms prevents sexual transmission of HIV from men to women and women to men, and reduces the risk of contracting other STIs, including genital warts and cervical cancer. Condoms have helped to reduce the spread of HIV. They have averted an estimated 50 million new HIV infections since the onset of the HIV epidemic, and remain a key component of high-impact HIV prevention programs. The statement recommends universal availability of free or low-cost, quality-assured condoms to ensure safety, efficacy, and effective use. Condom promotion should also address structural factors that hinder effective access to and use of condoms. The position statement ends by advocating for adequate investment for condom programming to sustain global and national responses to HIV, other STIs, and unintended pregnancy.

[View Position Statement](#)

### **Defeating AIDS— Advancing Global Health**

**Piot, P., Abdool Karim, S.S., Hecht, R., et al., on behalf of the UNAIDS–*Lancet* Commission (June 2015), 38(9989), pp. 171–218, doi: 10.1016/S0140-6736(15)60658-4.**

The United Nations Joint Commission on HIV/AIDS (UNAIDS)–*Lancet* Commission is a multi-stakeholder entity established in May 2013 to investigate how the AIDS response could evolve in a new era of sustainable development. In this report, the Commission makes the following seven key recommendations based on analysis and discussions:

- All aspects of a comprehensive HIV response must be funded, and resources should be targeted to where they will make the greatest difference.
- Countries with financial capacity should fund more of their HIV responses; international funding remains necessary in low-income countries.
- Translating evidence into policy requires transparent data review and establishment of robust accountability mechanisms at national and sub-national levels.
- Practical solutions are needed to expedite changes in laws, policies, and public attitudes that violate the human rights of vulnerable populations.
- Leadership and increased political commitment at the highest level are critical to the difficult processes of developing HIV policies and securing funding.
- Research must remain a core component of the HIV response, with priorities including epidemiology of key populations and implementation research, among others.
- HIV programs must establish new alliances with other sectors and constituencies that pursue shared goals, and identify effective models for collaboration.

[View Report](#)

## Toward a Systematic Approach to Generating Demand for Voluntary Medical Male Circumcision: Insights and Results from Field Studies

Sgaier, S.K., Baer, J., Rutz, D.C., et al. *Global Health: Science and Practice* (June 2015), doi: 10.9745/GHSP-D-15-00020.

The authors reviewed available literature on demand generation for voluntary medical male circumcision (VMMC) and visited VMMC programs in seven countries to assess current demand-generating strategies and identify gaps. They then developed a four-component framework for VMMC demand generation, consisting of:

1. *Insight development*: implementation of quantitative and qualitative research to understand what drives or limits demand for VMMC, and how to increase its appeal at the individual and population levels.
2. *Intervention design*: development of innovative solutions to generate demand that address the cognitive, emotional, cultural, and structural barriers affecting a man's decision to be circumcised.
3. *Implementation and coordination to achieve scale*: strategic program implementation to avoid mismatches between supply and demand, as well as coordination among all partners and stakeholders to expand implementation.
4. *Measurement, learning, and evaluation*: data-gathering on the levels of demand and the effectiveness and cost-effectiveness of demand generation programs.

The authors noted that the first three components are interdependent and may overlap. The fourth component underpins the others, since measurement, learning, and evaluation are foundational for all stages of demand generation. The authors concluded that this approach, and the lessons from VMMC scale-up, may also be applicable to other public health programs seeking new or improved evidence-based approaches to increase service uptake, retention, and adherence.

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## Behavioral Prevention

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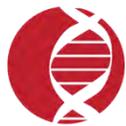
### Condoms, Lubricants and Rectal Cleansing: Practices Associated with Heterosexual Penile-Anal Intercourse Amongst Participants in an HIV Prevention Trial in South Africa, Uganda and Zimbabwe

Duby, Z., Hartmann, M., Montgomery, E.T., et al. *AIDS and Behavior* (July 2015), doi: 10.1007/s10461-015-1120-0.

This study investigated condom and lubricant use, rectal cleansing, and rectal gel use for penile-anal intercourse (PAI) during in-depth interviews with 88 women from four sites in South Africa, Uganda, and Zimbabwe who formerly participated in VOICE, a five-arm HIV prevention trial of two antiretroviral tablets and a vaginal gel. The study found that the majority of Zimbabwean participants (65 percent) and South African participants (73 percent) believed that condoms could be used for PAI. In Uganda, however, the majority (59 percent) of participants did not think it was possible to use condoms for anal sex, for reasons including the anus being too tight and that the condom would tear or get stuck. Some participants in all three countries believed that it was not necessary to use condoms for PAI, suggesting that some men and women choose to engage in PAI for HIV

prevention, as PAI is seen as a safer alternative to penile-vaginal intercourse. When asked about vaginal gel use, some participants suggested that if the gel provided protection from HIV, women might use it vaginally or rectally. The authors concluded that results of this first study related to practices associated with PAI among heterosexual women show that women need to be included in rectal microbicide trials in Africa.

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## Biomedical Prevention

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### **Implementation and Operational Research: Maternal Combination Antiretroviral Therapy Is Associated With Improved Retention of HIV-Exposed Infants in Kinshasa, Democratic Republic of Congo**

Feinstein, L., Edmonds, A., Okitolonda, V., et al. *Journal of Acquired Immune Deficiency Syndromes* (July 2015), 69(3): e93–e99, doi: 10.1097/QAI.0000000000000644.

This study assessed whether providing combination antiretroviral therapy (cART) to HIV-positive mothers was associated with reduced loss to follow-up (LTFU) of their HIV-exposed infants. The authors analyzed data for 1,318 HIV-exposed infants; of those, 1,008 infants (76 percent) had mothers who had not yet initiated cART. The control group included infants whose mothers initiated cART by the day of infant enrollment. Infants were considered LTFU after a missed appointment and three failed tracking attempts, or if their last clinic visit was over six months ago. Analysis revealed that providing HIV-positive mothers with cART reduced the likelihood that their HIV-exposed infants would be lost to follow-up. The 18-month cumulative incidence of LTFU was 8 percent among infants whose mothers had initiated cART by the time they enrolled their infants in post-exposure care, compared to 20 percent among infants whose mothers were not yet on cART. Five percent of infants never returned for a visit after enrolling in care, 9 percent were LTFU within three months, and 13 percent were LTFU within six months. The authors reported that older infant enrollment age, younger maternal age, and shorter maternal time receiving cART were associated with increased LTFU. They concluded that increasing access to cART for pregnant women could improve retention of HIV-exposed infants.

[View Abstract](#)

### **The Spear and Shield Intervention to Increase the Availability and Acceptability of Voluntary Medical Male Circumcision in Zambia: A Cluster Randomised Controlled Trial**

Weiss, S.M., Zulu, R., Jones, D., et al. *The Lancet HIV* (April 2015), doi: 10.1016/S2352-3018(15)00042-9.

This cluster-randomized controlled study tested the effect of the Spear and Shield intervention on demand for voluntary medical male circumcision (VMMC) among hard-to-reach men in Zambia. The authors provided staff at 13 community health centers with training on performing VMMC and then randomly assigned five centers as intervention sites, five as control, and three as observation only.

Counselors or nurses from the five experimental sites were trained to carry out the Spear and Shield intervention, which promotes sexual risk reduction and VMMC. The intervention included sessions on HIV and sexually transmitted infections, male condoms, male circumcision, and sexual communication followed by hands-on demonstrations and practice with penis models. Eight hundred men were recruited from the five experimental and five control centers between February 2012 and September 2013 and were followed up for one year; men who accepted VMMC during the study received an additional assessment three months after circumcision. Men in the intervention group were 2.5 times more likely than control participants to accept circumcision. In addition, condom use increased in the experimental group, but not in the control group. The authors concluded that comprehensive HIV prevention programs can increase the demand for and uptake of VMMC services.

[View Abstract](#)

### **RED for PMTCT: An Adaptation of Immunization's Reaching Every District Approach Increases Coverage, Access, and Utilization of PMTCT Care in Bondo District, Kenya**

Kanyuuru, L., Kabue, M., Ashengo, T.A., et al. *International Journal of Gynecology and Obstetrics* (June 2015), doi: 10.1016/j.ijgo.2015.04.002.

The authors reported the results and program experience of a pilot adaptation of Reaching Every District (RED) for prevention of mother-to-child transmission of HIV (PMTCT) in Bondo District of Kenya between July 2010 and June 2012 as a way of improving PMTCT care. The RED approach emphasizes five operational components designed to improve programmatic coverage: (1) better resource planning and management; (2) outreach services for all target populations; (3) supportive supervision for service providers; (4) links between communities and services; and (5) program monitoring. Community health workers from area villages were recruited and trained on the community strategy, community-based health information systems, and RED for PMTCT. Between 2010 and 2012, the proportion of pregnant women who completed four prenatal care visits increased significantly, from 25 percent to 41 percent; six-week testing for HIV-exposed infants also increased significantly (from 27 percent to 78 percent). Uptake of partner testing increased as well, from 1.8 percent to 19.3 percent. The authors concluded that RED for PMTCT was successful at increasing access to and utilization of PMTCT services among those who attended prenatal care in Bondo District, and recommended scaling up this model to other districts.

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## Combination Prevention

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### **Combined Intimate Partner Violence and HIV/AIDS Prevention in Rural Uganda: Design of the SHARE Intervention Strategy**

Wagman, J.A., King, E.J., Namatovu, F., et al. *Health Care for Women International* (June 2015), e-publication ahead of print.

The Safe Homes and Respect for Everyone (SHARE) intervention was implemented by Rakai Health Services Programs (RHSP) between 2005 and 2009 in rural Uganda and combined HIV services with community outreach and messages on preventing intimate partner violence (IPV). The program reached 3,236 households in Rakai and was associated with significant declines in IPV. The authors of this article described how SHARE's IPV prevention strategies were integrated into RHSP's existing HIV programming. SHARE partnered with RHSP's Health Education and Community Mobilization (HECM) team to raise awareness in intervention regions about how IPV increases women's risk for HIV infection, and contracting HIV increases women's vulnerability to abuse. SHARE also trained the HECM team to incorporate messages about HIV and IPV prevention within educational materials and during occasions when people gather. SHARE participants also received general medical and HIV prevention and treatment services via 17 mobile clinics. Additionally, SHARE established peer groups in each intervention region and implemented a 10-session learning program in schools and central locations on topics including sex and love, HIV and sexually transmitted infections, gender equality, and the importance of mutually consensual sex. The authors concluded that HIV programmers in other sub-Saharan African settings should consider adopting SHARE's approach as a standard of care for preventing IPV and HIV infection.

[View Abstract](#)

### **Promotion of Rapid Testing for HIV in Primary Care (RHIVA2): A Cluster-Randomised Controlled Trial**

Leber, W., McMullen, H., Anderson, J., et al. *The Lancet HIV* (June 2015), 2(6), doi: 10.1016/S2352-3018(15): 059-4.

This cluster-randomized controlled trial examined whether including educational outreach promoting rapid HIV testing within general practice leads to increased and early diagnosis of HIV. Between April and August 2011, the authors randomly assigned 40 general practices in the United Kingdom to either intervention (n=20) or control (n=20) groups. Intervention practices included an HIV education program, follow-up training for an HIV lead nurse or assistant, integration of opt-out rapid HIV testing within routine health checks, and provision of free rapid HIV tests. Control practices offered the usual care only, which included HIV testing on client request. The authors reported that intervention practices made a total of 32 new HIV diagnoses, compared to 14 new diagnoses made by control practices. Additionally, the frequency of HIV diagnosis was significantly higher in the intervention than the control practices (0.30 and 0.07 per 10,000 patients per year, respectively). The authors concluded that promoting opt-out rapid testing in general practice health facilities increased the rate of HIV diagnosis. They recommended implementing routine HIV screening in general practices in areas with high HIV prevalence.

[View Abstract](#)



### **Change over Time in Police Interactions and HIV Risk Behavior Among Female Sex Workers in Andhra Pradesh, India**

Erausquin, J.T., Reed, E., and Blankenship, K. *AIDS and Behavior* (June 2015) 19(6): 1108–1115, doi: 10.1007/s10461-014-0926-5.

The authors of this study examined changes in relations between police and female sex workers (FSWs), and links between negative police actions and risk of sexually transmitted infections (STIs) among FSWs, in the context of a community-led structural HIV prevention intervention. The analysis also examined the effects of two strategies (sensitization to challenge stigma, and a crisis intervention strategy, which was implemented later in the project) to reduce negative policing practices. The authors used cross-sectional data from 1,680 FSWs over three time periods (2006, 2007, and 2009–2010, when the crisis intervention strategy was in place) to determine (1) whether FSWs' reports of negative interactions with police declined over time and (2) whether any association between FSWs' reports of negative police interactions and HIV risk behaviors varied over time. Raids and arrests of FSW were lower in Round 3 than during the prior survey rounds. However, negative police practices remained linked to sexual risk-taking among FSWs. Women who had more than one negative police interaction were more likely to experience STI symptoms, use condoms inconsistently with clients, and accept higher fees for unprotected sex. The authors concluded that experiences with police were strongly associated with HIV risk in this sample of FSWs and recommended strategies to end negative police practices toward this vulnerable group.

[View Abstract](#)

### **Gender-Based Violence in Rural Uttar Pradesh, India: Prevalence and Association With Reproductive Health Behaviors**

Ahmad, J., Khan, M.E., Mozumdar, A., and Varma, D.S. *Journal of Interpersonal Violence* (May 2015), pii: 0886260515584341, e-publication ahead of print.

During a large household survey carried out in 2009–2010 in Uttar Pradesh, India, the authors interviewed 4,223 married women aged 15–49 years and 2,274 husbands of these women to explore the prevalence of different forms of gender-based violence (GBV) and its impact on women's reproductive health behavior. Thirty-seven percent of participants had experienced any form of GBV during the last 12 months, including emotional violence (31 percent), physical violence (28 percent), and sexual violence (6 percent). The majority (47 percent) experienced violence during their last pregnancy; 34 percent of these women also reported pregnancy complications. Women who reported violence were less prepared for delivery and less likely to have an institutional delivery, seek postnatal care within seven days of delivery, and have spousal communication on family planning. Moreover, women from non-Hindu families, along with those without any formal education, from families with a low standard of living index, and working outside the home, reported experiencing more violence compared to their counterparts. The authors concluded that GBV alone can increase

the chances of serious reproductive morbidity and mortality among women, sometimes leading to abortion and stillbirths. They recommended that health care workers be trained to identify high-risk women and advise them on how to protect themselves from GBV during pregnancy.

[View Abstract](#)

### **Antiretroviral Therapy Availability and HIV Disclosure to Spouse in Rakai, Uganda: A Longitudinal Population-Based Study**

Haberlen, S., Nakigozi, G., Gray, R.H. et al. *Journal of Acquired Immune Deficiency Syndromes* (June 2015), 69(2): 241–247, doi: 10.1097/QAI.0000000000000600.

In rural Rakai district, Uganda, the authors used longitudinal population-based data collected between 2000 and 2008 to evaluate the association between availability of antiretroviral therapy (ART) and disclosure of newly diagnosed HIV infection to spouses by men and women in stable unions. ART was introduced in this population in mid-2004 and became widely available through fixed and mobile clinics by 2005. The study included 557 married adults; 264 were diagnosed with HIV before ART was available (2000–2004), and 293 were diagnosed after ART was introduced (2005–2008). The authors reported that disclosure increased from an estimated 58 percent in the pre-ART period to 75 percent following ART introduction. Disclosure increased between the pre-ART and post-ART periods among both men (63 percent to 78 percent, respectively) and women (55 percent to 73 percent).

Additionally, 127 of the 139 disclosures in the pre-ART period, and 190 of the 198 disclosures in the post-ART period, occurred within the first follow-up interval after HIV diagnosis. Disclosure to a spouse was strongly associated with utilization of HIV treatment services. However, the likelihood of disclosure was lower among adults who reported alcohol use. The authors concluded that access to ART can help to prevent transmission to uninfected partners and can enhance linkage to treatment for infected couples.

[View Abstract](#)

### **Reducing HIV Risks in the Places Where People Drink: Prevention Interventions in Alcohol Venues**

Pitpitan, E.V. and Kalichman, S.C. *AIDS and Behavior* (June 2015), e-publication ahead of print.

This qualitative literature review assessed research on alcohol venues to determine the social and structural factors that might influence risk for HIV in these settings. Despite the many established HIV risk factors at play in alcohol venues, limited prevention strategies have been implemented in such places. The authors identified a total of 11 HIV prevention interventions or programs: five carried out at the social level and aimed at changing social norms, two at the structural level, and two combining social and structural approaches (multilevel). The five interventions at the social level included staff training on responsible alcohol serving, HIV prevention messages at venues, and condom availability. The two structural intervention studies were conducted as public health program evaluations, and offered diagnosis and treatment for sexually transmitted infections on-site. The multilevel studies delivered a peer-led intervention, as well as a structural intervention entailing HIV education for venue

managers. The authors concluded that alcohol venues play an important role in influencing risks for HIV, and recommended that HIV prevention programs consider behavioral interventions beyond condom use and HIV prevention messaging. In particular, as antiretroviral therapy and other new prevention technologies are brought to scale, alcohol venues will be important places for promotion and intervention.

[View Abstract](#)

### **Length of Secondary Schooling and Risk of HIV Infection in Botswana: Evidence from a Natural Experiment**

De Neve, J-W., Fink, G., Subramanian, S.V., and Bor, J. *The Lancet Global Health* (June 2015), doi: 10.1016/S2214-109X(15)00087-X.

In 1996, Botswana reformed the grade structure of secondary schools, expanding access to grade 10 and increasing educational attainment for affected cohorts (those who entered secondary school in 1996 or later). Using HIV biomarkers and demographics for 3,965 women and 3,053 men from two nationally representative surveys (2004 and 2008), the authors examined the effect of education on the cumulative risk of HIV infection and assessed the cost-effectiveness of secondary schooling as an HIV prevention intervention. Analysis showed that secondary schooling had a large protective effect against risk of HIV infection in Botswana, with particularly large impacts among women. Moreover, each additional year of secondary schooling caused by the policy change led to a reduction in the cumulative risk of HIV infection (by 8.1 percentage points), relative to a baseline prevalence of 25.5 percent in the pre-reform cohort. The authors also reported that secondary school was cost-effective as an HIV prevention intervention, based on standard metrics (cost per HIV infection averted was US\$27,753). They concluded that investment in expanded access to secondary schooling is an effective HIV preventive measure and should be included in combination HIV prevention strategies in countries with large, generalized HIV epidemics.

[View Abstract](#)



**Epidemiology**

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### **Rates of HIV Testing and Diagnosis in South Africa: Successes and Challenges**

Johnson, L.F., Rehle, T.M., Jooste, S., and Bekker, L-G. *AIDS* (July 2015), 29(11): 1401–1409.

The authors of this article investigated South Africa's progress towards the HIV counseling and testing (HCT) goals set by the Joint United Nations Programme on HIV/AIDS (90 percent of HIV-positive individuals knowing their status). Using a mathematical model, they estimated changes in HCT up to mid-2012 and projected the likely change in the proportion of undiagnosed HIV-positive adults during the 2012–2020 period. After analyzing HCT data from public and private health sectors and household survey estimates on HIV testing, they found that 5.7 million HIV-positive adults aged 15 or

over lived in SA in mid-2012. Of these, 23.7 percent (31.9 percent of men and 19 percent of women) were undiagnosed. Although estimates suggest substantial declines in the number of undiagnosed HIV-positive adults in South Africa over the last decade, the number remains high (664,000 men and 679,000 women in 2012). The authors said that if the Department of Health targets of 10 million HIV tests per annum are met, the undiagnosed numbers should decline to 249,000 men and 286,000 women by 2020, or 8.9 percent; and South Africa could meet the 10 percent target set by UNAIDS by 2018. They concluded that South Africa is on track to meet the UNAIDS target of fewer than 10 percent undiagnosed by 2020, provided the country continues to test 10 million individuals per annum.

[View Abstract](#)



## Reports, Guidelines & Tools

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### AIDSFree HIV Testing Services Community of Practice

#### Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project.

Launched in July 2015, the AIDSFree HIV Testing Services (HTS) Community of Practice allows HTS professionals and policymakers to share knowledge and experiences with their peers; participate in moderated discussions; and access the latest HIV testing literature and news. The Community will feature moderated discussions, HIV testing literature and news updates, and the opportunity to connect with peers.

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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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# AIDSFree Prevention Update



## September 2015

This is the September 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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## **Motivations for Reducing Other HIV Risk-Reduction Practices if Taking Pre-Exposure Prophylaxis: Findings from a Qualitative Study among Women in Kenya and South Africa**

Corneli, A., Namey, E., Ahmed, K., et al. *AIDS Patient Care and STDs* (September 2015), 29(9): 503-509, doi: 10.1089/apc.2015.0038.

This study assessed how and why women's self-reported use of HIV risk-reduction practices in certain contexts might change if they had access to and used pre-exposure prophylaxis (PrEP). From February to May 2013, the authors conducted qualitative, semi-structured interviews with 60 participants at HIV testing and counseling centers in Kenya and South Africa. Women discussed why they and other women in their communities would be likely to have sex with a new partner, or stop using condoms, if they were using PrEP. Their findings indicated three related beliefs. First, women said that PrEP provides protection; they perceived PrEP as an effective HIV prevention method that would replace the need for condoms. Second, they felt that using PrEP would avoid conflicts over using condoms, which their partners disliked. Third, participants perceived that having sex without a condom, or with a new partner, was essential to receiving material goods and financial assistance. The authors concluded that women who take PrEP should receive guidance and HIV risk reduction counseling so that they can make informed decisions about their sexual health.

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## **Oral Pre-Exposure Prophylaxis—Questions and Answers**

**Joint United Nations Programme on HIV/AIDS (July 2015).**

This reference guide released by the Joint United Nations Programme on HIV/AIDS (UNAIDS) highlights the benefits of expanding pre-exposure prophylaxis (PrEP) to all people who are at substantial risk of acquiring HIV and who do not have access to, or cannot consistently use, other prevention methods, such as condoms and lubricants. Studies have shown that PrEP is effective in preventing HIV among diverse groups, including men who have sex with men, transgender people, heterosexual men and women, and people who inject drugs; and that it reduces HIV transmission by up to 90 percent compared with placebo when taken correctly. The World Health Organization anticipates issuing recommendations and implementation guidelines in 2015 to offer PrEP to all key populations. The U.S. Food and Drug Administration has approved the combination of tenofovir and emtricitabine as PrEP medication, and the U.S. Centers for Disease Control and Prevention has developed PrEP guidelines for adults at higher risk of HIV exposure. UNAIDS advocates scaling up PrEP as an additional HIV prevention intervention. UNAIDS's Fast-Track strategy, designed to end the HIV epidemic by 2030, includes PrEP as part of combination HIV prevention for populations at higher risk of HIV. This reference guide provides detailed information on eligibility for PrEP, PrEP use, potential risk compensation, side effects and resistance, PrEP delivery, and the cost and cost-effectiveness of PrEP.

[View Guide](#)

## 8th International AIDS Society Conference

**8th IAS Conference on HIV Pathogenesis, Treatment & Prevention, Vancouver, Canada (July 19–22, 2015).**

The International AIDS Society Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2015) featured the latest HIV science, including basic, clinical, and prevention research. The conference brought together HIV professionals from around the world with a focus on implementation—moving scientific advances into practice in prevention, treatment, and care worldwide. Presentations covered new findings on treatment as prevention and oral pre-exposure prophylaxis, and the application of these technologies for public and individual protection within the context of the epidemic in 2015. The conference website includes highlights, presentations, and abstracts from the conference.

[View Conference Materials](#)



## Behavioral Prevention

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### **Promoting Female Condom Use among Female University Students in KwaZulu-Natal, South Africa: Results of a Randomized Behavioral Trial**

Mantell, J.E., Smit, J.A., Exner, T.E., et al. *AIDS and Behavior* (July 2015), 19(7): 1129–1140.

This study compared the efficacy of two approaches for promoting the use of female condoms. Female students at a South African university were randomized to either a single group session featuring information on female condoms (control, n = 149), or a two-session enhanced intervention (EI, n = 147) that included information on female condoms, rehearsal of their use, and skill-building on partner negotiation. Follow-up assessments were conducted at 2.5 and 5 months after completion of the intervention. At both follow-up periods, participants in both groups reported significant reductions relative to baseline in instances of vaginal intercourse without condoms (either male or female). In the control group, the number of female condoms used increased 135.6 times between baseline and the 2.5-month follow-up; and 58 times at the 5-month follow-up. In the EI group, use of female condoms increased 16.8 times at 2.5 months and 12.7 times at 5 months. The authors concluded that both interventions led to significant reductions in unprotected sex and significant increases in the use of female condoms during sexual encounters at five months post-intervention. They recommended a brief one-session intervention on using female condoms, delivered over a 60–90 minute period, especially in resource-constrained settings.

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### **Estimating the Cost of Early Infant Male Circumcision in Zimbabwe: Results from a Randomized Noninferiority Trial of AccuCirc Device Versus Mogen Clamp**

Mangenah, C., Mavhu, W., Hatzold, K., et al. *Journal of Acquired Immune Deficiency Syndromes* (August 2015), 69(5): 560–566, doi: 10.1097/QAI.0000000000000699.

The authors conducted a relative costs analysis comparing the AccuCirc device with the Mogen clamp for early infant male circumcision (EIMC). Between January and June 2013, they randomly assigned 150 male infants aged 6–60 days to either AccuCirc or Mogen clamp groups in a 2:1 ratio (100 AccuCirc; 50 Mogen clamp) in a polyclinic in Harare, Zimbabwe. The infants were followed for two weeks after circumcision. The authors analyzed data on direct costs for consumable and non-consumable supplies (including the circumcision tools, staff and associated training, and environmental costs) and indirect costs, including capital and support personnel costs. They found unit costs of US\$49.53 and \$55.93, respectively, for AccuCirc and the Mogen clamp. Supply costs were higher for Mogen clamp (\$30.18, compared to \$13.48 for AccuCirc). Key contributors to the unit cost of AccuCirc were consumable supplies, price of the device, and personnel costs. For the Mogen clamp, key cost contributors were consumable supplies and personnel costs. The authors concluded that their study results could inform managers about which devices to use when scaling up EIMC and could help to determine overall resources needed for scaling up the EIMC program in Zimbabwe.

[View Abstract](#)

### **Repeat Use of Post-Exposure Prophylaxis for HIV among Nairobi-Based Female Sex Workers Following Sexual Exposure**

Izulla, P., McKinnon, L.R., Munyao, J., et al. *AIDS and Behavior* (May 2015), E-publication ahead of print, doi: 10.1007/s10461-015-1091-1.

This study analyzed characteristics associated with female sex workers (FSWs) who seek repeat doses of post-exposure prophylaxis (PEP), and described barriers to PEP access and use. Study participants included 5,814 HIV-negative, active FSWs enrolled in targeted HIV prevention through the Kenya AIDS Control Project between 2009 and 2013. The authors reported that one-fifth of all participants (n = 1,119) requested PEP at least once, and 3.7 percent requested it more than once. Repeat PEP users were more likely to be younger, had almost 20 percent more casual partners on the day prior to PEP enrollment; and were more than twice as likely to report always using condoms with casual partners. Repeat PEP users were half as likely to have a regular partner compared to the remainder of the study population, but were twice as likely to use condoms with their regular partner. Participants mentioned a number of barriers to PEP access, including perceived or experienced side effects of antiretroviral medications; perceived stigma from other FSWs (the assumption that PEP users are likely to be HIV positive); and fear of stigmatization by providers, especially following repeated PEP use. The authors concluded that increasing awareness and use of PEP, strengthening adherence, and minimizing barriers to access could contribute significantly to increasing PEP uptake among FSWs.

[View Abstract](#)

## **Single-Tablet Emtricitabine-Rilpivirine-Tenofovir as HIV Post-Exposure Prophylaxis in Men Who Have Sex with Men**

Foster, R., McAllister, J., Read, T.R., et al. *Clinical Infectious Diseases* (June 2015), pii: civ511 (E-publication ahead of print).

This multi-center, open-label, nonrandomized trial assessed adherence and safety of a three-drug regimen (coformulated emtricitabine, rilpivirine, and tenofovir disoproxil fumarate, or FTC-RPV-TDF), taken as a single tablet over 28 days for post-exposure prophylaxis (PEP). The authors recruited 100 HIV-negative men who have sex with men in urban Australia between December 2012 and June 2014. All participants attended up to 7 follow-up visits over 12 weeks. PEP completion was 92 percent; reasons for noncompletion were loss to follow-up, study burden, and medication side effects. Among the 92 participants who completed the 28 days of follow-up, self-reported PEP adherence was 98.5 percent; 67 of these men reported no missed doses, and 86 reported taking all doses with food. No participant reported missing more than three doses. Among the 78 participants who returned their pill bottles at day 28, adherence by pill count was 98.6 percent. Participants reported that the most common adverse events were fatigue and nausea. The authors concluded that a single-tablet regimen of FTC-RPV-TDF was well tolerated as once-daily PEP, with high levels of adherence and completion. They recommended evaluating other single-tablet regimens as PEP.

[View Abstract](#)

## **Missed Opportunities along the Prevention of Mother-to-Child Transmission Services Cascade in South Africa: Uptake, Determinants, and Attributable Risk (the SAPMTCTE)**

Woldesenbet, S., Jackson, D., Lombard, C., et al. *PLOS ONE* (July 2015), 10(7): e0132425, doi: 10.1371/journal.pone.0132425.

The authors of this study measured national uptake of antenatal and early postnatal services for prevention of mother-to-child transmission (PMTCT) in South Africa, seeking to (1) identify key PMTCT dropout points, rates, and determinants; and (2) estimate the number of pediatric HIV infections resulting from PMTCT dropout. The study was conducted between June and December 2010 among mother-infant pairs attending immunization services at randomly selected public primary and community health care facilities in nine South African provinces. Of 9,803 participating mothers, 2,977 were HIV positive. Of these, 80.4 percent received some form of maternal and infant antiretroviral treatment, and 34.9 percent dropped out from one or more steps in the PMTCT service cascade. Specific groups of mothers were more likely to miss one or more services along the cascade: adolescents (under age 20); women delivering at home; those presenting late (during the third trimester); women with lower income; those with lower education; and women who had not disclosed their HIV status to their partners. The authors concluded that one-third of infant HIV infections were attributable to missed opportunities in the PMTCT cascade, and that these could be prevented by optimizing uptake of existing key antenatal and early postnatal PMTCT services.

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## **Improving the Quality of Voluntary Medical Male Circumcision through Use of the Continuous Quality Improvement Approach: A Pilot in 30 PEPFAR-Supported Sites in Uganda**

Byabagambi, J., Marks, P., Megere, H., et al. *PLOS ONE* (July 2015), 10(7): e0133369, doi: 10.1371/journal.pone.0133369.

This report described gaps in the quality of services for voluntary medical male circumcision (VMMC) and offered lessons that could be used by other VMMC programs. In 2012, the authors examined data on 53 VMMC quality standards and client-level indicators from 30 sites in Uganda that received support from the

U.S. President's Emergency Plan for AIDS Relief (PEPFAR). The evaluation found significant weaknesses in monitoring and evaluation (no standard client data collection tools existed in the country) along with gaps in staffing, compliance with national guidelines, and management systems. PEPFAR responded by providing project-based technical support to improve the quality of Uganda's VMMC services. The project used a continuous quality improvement (CQI) approach and scored participating sites on their readiness to provide VMMC. At baseline (early 2013), fewer than 20 percent of the sites were rated "good" (adequate supplies, equipment, client counseling, and surgical procedures). By November 2013, 67 percent of sites were rated as good. Significant improvements also occurred in post-operative follow-up at 48 hours, assessment of sexually transmitted infections, securing of informed consent, and use of local anesthesia. The authors concluded that the CQI approach successfully addressed quality gaps in VMMC and recommended that VMMC programs consider quality improvement interventions from the inception of program design.

### [View Abstract](#)

## **Seasonal PrEP for Partners of Migrant Miners in Southern Mozambique: A Highly Focused PrEP Intervention**

Cremin, I., Morales, F., Jewell, B.L., et al. *Journal of the International AIDS Society* (July 2015), 18(3): 19946, [dx.doi.org/10.7448/IAS.18.4.19946](https://dx.doi.org/10.7448/IAS.18.4.19946).

This study used a mathematical model to estimate the cost-effectiveness and prevention impact of providing time-limited pre-exposure prophylaxis (PrEP) to women whose partners work in South Africa and return home to Gaza, Mozambique over the Christmas period. Assuming that PrEP costs US\$300 per person per year for all eligible HIV-negative women, the cost per infection averted was \$15,647. Providing PrEP specifically to partners of miners, because of the comparatively higher incidence in this group, increased the cost per infection averted to \$71,374. However, providing PrEP to miners' partners for only the last six weeks of the year would reduce the cost per infection averted dramatically, to \$9,538. The model showed that reducing the cost per infection averted to below \$3,000 would require good adherence by at least 85 percent of PrEP users; and PrEP would need to cost less than \$115 per person per year. This model, the authors said, showed that seasonal provision—providing PrEP to miners' partners during the time of greatest exposure—averted the same number of infections in Gaza, while greatly reducing the quantity of PrEP being used and paid for. They suggested that this strategy would facilitate resource prioritization during intervention planning. It could also improve the efficiency of a PrEP intervention considerably in this setting, while providing important reproductive health benefits.

### [View Abstract](#)

## **Implementation of Prevention of Mother-to-Child Transmission of HIV Programme through Private Hospitals of Delhi—Policy Implications**

Gupta, A.K., Garg, C.R., Joshi, B.C, et al. *AIDS Care* (July 2015), E-publication ahead of print.

This study examined the implementation status of prevention of mother-to-child transmission (PMTCT) programs in private hospitals in India. Between March and September 2013, the authors interviewed directors of obstetrics and gynecology and pediatrics at 29 large corporate hospitals, 42 medium-sized hospitals, and 10 small nursing homes. Interviews covered HIV testing and counselling, PMTCT programs, the type of care provided to HIV-positive pregnant women, access by HIV-positive women to CD4-count services, and other relevant questions. The study found that private hospitals routinely performed HIV testing for all antenatal

clients, but did not obtain women's consent, and did not offer pre- or post-test counseling. Medical termination of pregnancy was undertaken in more than 90 percent of HIV-positive pregnant women. The hospitals did not follow any PMTCT protocol and did not provide delivery services to HIV-positive women. Only 8 percent of HIV-positive women were referred to public health facilities for antenatal care, delivery, and HIV care. CD4 cell-count facilities were available in 41 percent of the hospitals, but HIV-positive clients were not given CD4 testing. Antiretroviral therapy was not available in any participating hospital. The authors concluded that policymakers urgently need to make the private health sector more accountable for PMTCT programming and to assume a greater regulatory role to improve technical standards of care in the private hospitals.

[View Abstract](#)

**Integration of PMTCT and Antenatal Services Improves Combination Antiretroviral Therapy cART Uptake for HIV-Positive Pregnant Women in Southern Zambia—A Prototype for Option B+?**

Herlihy, J.M., Hamomba, L., Bonawitz, R., et al. *Journal of Acquired Immune Deficiency Syndromes* (July 2015), E-publication ahead of print.

This quasi-experimental intervention, conducted at six government antenatal clinics (ANC) in Southern Province, Zambia, assessed whether integrating prevention of mother-to-child transmission (PMTCT) and ANC services improves the uptake of combination antiretroviral therapy (cART) in HIV-positive pregnant women. The intervention consisted of (1) training 132 providers in HIV and ANC services; (2) establishing a lab-courier system to expedite CD4 results; and (3) following up mother-infant pairs via 82 community-based counselors. Retrospective baseline data on 510 mother-infant pairs were obtained from clinic registers during a seven-month period before the intervention. Post-intervention data were collected from 624 ART-naive, HIV-positive pregnant women and their infants presenting to ANC from December 2011 to June 2013. After the intervention, the proportion of HIV-positive pregnant women receiving CD4 counts increased from 50.6 to 77.2 percent, and the proportion of eligible pregnant women who began cART increased from 27.5 to 71.5 percent. Moreover, the proportion of eligible HIV-exposed infants with documented HIV testing at six weeks increased from 41.9 percent to 55.8 percent after the intervention. The authors concluded that integrated HIV and ANC care, coupled with community-based counseling, led to measurable improvement in uptake of CD4 counts, the proportion of eligible women initiated on cART, and the proportion of infants tested.

[View Abstract](#)



## Combination Prevention

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**Seek, Test and Disclose: Knowledge of HIV Testing and Serostatus among High-Risk Couples in a South African Township**

Doherty, I.A., Myers, B., Zule, W.A., et al. *Sexually Transmitted Infections* (July 2015), pii: [sextrans-2014-051882](#); doi: [10.1136/sextrans-2014-051882](#).

This study analyzed data on 290 high-risk couples from Khayelitsha, South Africa to investigate couple's knowledge about their partners' HIV testing and serostatus. All participants were tested for HIV at baseline and asked about their partner's past HIV testing and current status. Of the 108 women (38 percent) reporting that

their partner was not infected, 95 percent were correct; 58 percent of women did not know their partner's status. Among men, 29 percent believed their partner was HIV-negative, and most were correct (83 percent and 4 percent newly diagnosed). However, the majority of men (66 percent) did not know their partner's HIV status. Moreover, only in 17 percent of couples did both partners correctly report one another's HIV status. Men in this population did not seek HIV testing nearly as often as women, but when they received counseling and tested, or a positive diagnosis, both members of the couple were more likely to know their partner's status. Most women did not disclose their HIV serostatus to their partners; only 13 percent of women were in a partnership with mutually correct knowledge of partner serostatus. The authors concluded that to reduce onward transmission of HIV in South Africa, programs must improve HIV testing uptake among men and HIV disclosure among women in heterosexual partnerships.

[View Abstract](#)



## Structural Prevention

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### **Partner Age-Disparity and HIV Incidence Risk for Older Women in Rural South Africa**

**Harling, G., Newell, M-L., Tanser, F., and Bärnighausen, T. *AIDS and Behavior* (July 2015), 19(7): 1317–1326.**

The authors examined the association between partner age disparity and HIV acquisition among older women through a quantitative analysis of a population-based, open cohort of 1,734 women aged 30 years or older in a rural community in KwaZulu-Natal, South Africa between January 2003 and June 2012. Each woman was tested for HIV between two and nine times during the study period. When they compared women with same-age partners to women with partners five years older, the authors found that having an older partner reduced the risk of HIV acquisition by one-third. Having a partner who was 10 years older reduced the risk by half. The authors also noted that while overall, women's sociodemographic status did not significantly affect the association between age disparity and HIV acquisition risk, those with higher levels of education had the strongest decline in risk as the age disparity increased. More educated women also had the smallest average age disparity in their relationships and the lowest risk of HIV infection among those with partners of similar age. The authors concluded that the sexual behaviors of middle-aged individuals differ from those of younger groups, adding that campaigns that warn young women about older partners and HIV risk may not be appropriate for older women. They called for HIV prevention interventions specifically targeting older women.

[View Abstract](#)



## Within-Gender Changes in HIV Prevalence among Adults between 2005/6 and 2010/11 in Zimbabwe

Gonese, E., Mapako, T., Dzangare, J., et al. *PLOS ONE* (July 2015), 10(7): e0129611, doi: 10.1371/journal.pone.0129611.

Demographic and Health Surveys conducted in Zimbabwe showed a decline in HIV prevalence from 18.1 percent in 2005/2006 to 15.2 percent in 2010/2011. In this cross-sectional study, the authors focused on key factors influencing the change in prevalence by examining differences in geographic location along with demographic, behavioral, and biological characteristics. They found a greater decline in prevalence for men in urban than rural settings (17 versus 13 percent, respectively). However, among women, a greater and significant decrease occurred in rural areas (19 percent), with no significant change in urban areas (9 percent). Significant declines were observed in both men and women with more than secondary education. The authors also noted a high proportional decline in sexual risk behaviors and increased condom use among both men and women who were in union, and for men and women who experienced sexual debut at 16 years and older. Geographic locations influenced prevalence, which declined significantly among men in Harare and women in Mashonaland Central, but increased among men in Matebeleland North and women in Bulawayo. The authors stated that their findings indicate the need for further research to determine reasons behind these variations by gender and provincial location.

### [View Abstract](#)

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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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# AIDSFree Prevention Update



## October 2015

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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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.



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## **Cost-effectiveness of Pre-exposure Prophylaxis Targeted to High-risk Serodiscordant Couples as a Bridge to Sustained ART Use in Kampala, Uganda**

Ying, R., Sharma, M., Heffron, R., et al. *Journal of the International AIDS Society* (July 2015), 18(3): 20013, doi: 10.7448/IAS.18.4.20013, eCollection 2015.

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**

Kalichman, S.C., Cherry, C., Kalichman, M.O., et al. *Archives of Sexual Behavior* (August 2015), doi: 10.1007/s10508-015-0559-4, E-publication ahead of print.

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

Rodríguez, D.C., Tripathi, V., Bohren, M., et al. *BMC Infectious Diseases* (August 2015), 15(1): 349, doi: 10.1186/s12879-015-1068-8.

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](#)



## Behavioral Prevention

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

Vejella, S., Patel, S.K., Saggurti, N., and Prabhakar, P. *AIDS and Behavior* (August 2015), E-publication ahead of print.

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.

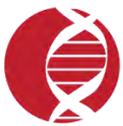
[View Abstract](#)

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

**Gamarel, K.E., Reisner, S.L., Darbes, L.A., et al. *AIDS Care* (August 2015), E-publication ahead of print.**

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.

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## **Biomedical Prevention**

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## **Predictors of HIV-test Utilization in PMTCT among Antenatal Care Attendees in Government Health Centers: Institution-based Cross-sectional Study Using Health Belief Model in Addis Ababa, Ethiopia, 2013**

**Workagegn F., Kiros G., Abebe L. *HIV/AIDS – Research and Palliative Care* (July 2015), 13(7):215-22. doi: 10.2147/HIV.S82000, eCollection 2015.**

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**

Lau, F.K., Jayakumar, S., Sgaier, S.K. *BMC Public Health* (August 2015), 15:813, doi: 10.1186/s12889-015-2135-1.

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**

Mahler, H., Searle, S., Plotkin, M., et al. *Global Health: Science and Practice* (September 2015), 3(3): 503–515, doi: 10.9745/GHSP-D-15-00151.

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**

McNaghten, A.D., Schilsky, M.A, Farirai, T., et al. *Journal of Acquired Immune Deficiency Syndromes* (August 2015), E-publication ahead of print.

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**

Osofi, A.O., John-Stewart, G., Kiarie, J.N., et al. *BMC Infectious Diseases* (July 2015), 15:298. doi: 10.1186/s12879-015-1053-2.

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

Eluwa, G.I., Adebajo, S., Idogho, O., et al. *Journal of Acquired Immune Deficiency Syndromes* (September 2015), 70(1): 67–74, doi: 10.1097/QAI.0000000000000701.

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

Kerrigan, D., Kennedy, C.E., Cheng, A.S., et al. *Journal of the International AIDS Society* (August 2015), 18(1): 20029, doi: 10.7448/IAS.18.1.20029, eCollection 2015.

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

Wattthayu, N., Wenzel, J., and Panchareounworakul, K. *The Journal of the Association of Nurses in AIDS Care* (September–October 2015), 26(5):6 02–612, doi: 10.1016/j.jana.2015.05.002.

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**

**Yamanis, T.J., Fisher, J.C., Moody, J.W., and Kajula, L.J. *AIDS and Behavior* (August 2015), E-publication ahead of print.**

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](#)



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

Mumtaz, G., Weiss, H., Vickerman, P., et al. *AIDS* (August 2015), 29(13): 1701–1710, doi: 10.1097/QAD.0000000000000761.

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.

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## Reports, Guidelines & Tools

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### 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.

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# AIDSFree Prevention Update



## November 2015

This is the November 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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## **Pre-exposure Prophylaxis to Prevent the Acquisition of HIV-1 Infection (PROUD): Effectiveness Results from the Pilot Phase of a Pragmatic Open-label Randomised Trial**

**McCormack, S., Dunn, D.T., Desai, M., et al. *The Lancet* (September 2015), doi: [http://dx.doi.org/10.1016/S0140-6736\(15\)00056-2](http://dx.doi.org/10.1016/S0140-6736(15)00056-2).**

This open-label, randomized, controlled trial, conducted in 13 clinics in England between 2012 and 2014, tested the effects of pre-exposure prophylaxis (PrEP) for preventing HIV-1 infection in HIV-negative men who have sex with men (MSM) who reported having had condomless anal intercourse in the previous 90 days. The participants were randomly assigned (1:1) to receive daily oral PrEP with tenofovir-emtricitabine, either starting at the enrolment visit (immediate group, n = 275) or after a deferral period of one year (deferred group, n = 269). Quarterly follow-up visits were conducted for all participants. HIV incidence was significantly lower in the immediate group than in the deferred group. Three HIV infections occurred in the immediate group, compared to 20 in the deferred group, despite 174 prescriptions for post-exposure prophylaxis in this group. No serious adverse drug reactions were reported, but 28 adverse events, including common nausea, headache, and arthralgia, resulted in interruption of PrEP. Analysis showed no difference between groups in incidence of sexually transmitted infections, despite a suggestion of risk compensation among some PrEP recipients. The authors recommended that the addition of PrEP to the standard of prevention for MSM at risk of HIV infection should be strongly supported.

[View Abstract](#)

## **New PEPFAR HIV Prevention and Treatment Targets**

### **U.S. President's Emergency Plan for AIDS Relief (PEPFAR)**

The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) announced ambitious new HIV prevention and treatment targets, setting a course toward achieving an AIDS-free generation. PEPFAR will work jointly with partner countries; the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); and the private sector to achieve the following prevention and treatment targets:

- Significant reductions in HIV incidence in young women aged 15 to 24 within the highest-burden areas of 10 sub-Saharan African countries by the end of 2016: 25 percent by the end of 2016 and 40 percent by the end of 2017.
- 11 million voluntary medical male circumcisions for HIV prevention by the end of 2016, reaching 13 million by the end of 2017.
- 11.4 million children, pregnant women receiving B+, and adults on antiretroviral treatment by PEPFAR and partners by the end of 2016; and a total of 12.9 million by the end of 2017.
- With the inclusion of resources from the Global Fund and partner countries, PEPFAR will be able to jointly support 18.5 million men, women, and children on life-saving treatment by the end of 2017.

[View Full Announcement \(PDF, 641 KB\)](#)

## **Barriers to the Uptake of Postexposure Prophylaxis Among Nairobi-based Female Sex Workers**

**Olsthoorn, A.V., Sivachandran, N., Bogoch, I., et al. *AIDS* (September 2015), e-publication ahead of print.**

This study, conducted among 134 female sex workers (FSWs) in a Nairobi clinic from May to August 2013, evaluated knowledge, access, and adherence to post-exposure prophylaxis (PEP) among clinic attendees. PEP is available as part of an HIV care and prevention program through dedicated FSW clinics in Nairobi, but is underutilized. Of the participants, 64 (47.8 percent) were at high HIV risk, defined as the self-report of any high-risk sex act during the past year, and 70 (52.2 percent) were categorized as at low HIV risk. The authors reported no significant associations between knowledge or use of PEP and age, education, duration of sex work, or other demographic variables. However, the number of high-risk sexual events per year varied significantly between women who had and had not accessed PEP. High-risk FSWs were less likely to have heard of or accessed PEP than lower-risk FSWs. Women who had accessed PEP reported a significantly lower number of high-risk sexual acts over the past year compared to those who had not accessed PEP. Among high-risk FSWs, those who had accessed PEP were more likely to report treatment for a genital infection or sex with an HIV-positive man during the last six months. The authors concluded that program delivery needs to be improved to ensure that FSWs most at risk can benefit from available PEP.

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## **Behavioral Prevention**

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### **Effects of Peer Education Intervention on HIV/AIDS Related Sexual Behaviors of Secondary School Students in Addis Ababa, Ethiopia: A Quasi-experimental Study**

**Menna, T., Ali, A., and Worku, A. *Reproductive Health* (September 2015), 12:84, doi: 10.1186/s12978-015-0077-9.**

This quasi-experimental study, conducted from March to June 2013, assessed whether peer education is an effective method of HIV prevention in high school settings. The authors assigned 560 grade 11 students from four purposely-selected secondary schools in different areas of Addis Ababa, Ethiopia into intervention and control groups. Only the intervention group received the peer education. Data for both groups were collected using self-administered questionnaires. The intervention students received twice-weekly 40-minute educational sessions on topics such as the structure and functions of human reproductive organs, HIV and AIDS, HIV prevention methods, and risky sexual behaviors among in-school youth delivered by peer education facilitators (students nominated by their peers based on their active class participations and good communications with other students), who had received two days of training. Comparison of pre- and post-intervention data revealed significant increases in comprehensive knowledge of HIV, willingness to accept HIV testing services, and likelihood of condom use in the intervention group, relative to the control group. The authors concluded that implementing peer-led HIV education programs in secondary schools could have significant positive effects on sexual behaviors and HIV prevention among in-school youth.

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### **"If You Are Not Circumcised, I Cannot Say Yes": The Role of Women in Promoting the Uptake of Voluntary Medical Male Circumcision in Tanzania**

Osaki, H., Mshana, G., Wambura, M., et al. *PLOS ONE* (September 2015), 10(9):e0139009. doi:10.1371/journal.pone.0139009.

This study analyzed women's influence on the uptake of voluntary medical male circumcision (VMMC) in the Njombe and Tabora regions of Tanzania. The authors conducted semi-structured, in-depth interviews (IDIs) with 14 circumcised and 16 uncircumcised men, and 20 participatory single-sex group discussions with men and women aged 20–49 between February and March 2014. Participants in 14 of the 20 group discussions (6 out of 8 in the women's groups and 8 of the 12 male groups) mentioned the importance of women's roles in men's decision-making about VMMC. During IDIs, however, only 5 of 14 recently circumcised men mentioned women as key influences on their decision to seek circumcision. The authors also found that married women's role influenced VMMC decisions indirectly—making suggestions and providing information on VMMC services, for example. Unmarried women, by contrast, influenced VMMC decisions directly and powerfully, by withholding sex or making circumcision a condition for establishing a sexual relationship. These findings were similar to those of other studies in Tanzania and Kenya, the authors said. They recommended further exploration of the role of women in effective VMMC program strategies to strengthen the scale-up of VMMC in HIV-affected communities.

[View Abstract](#)

### **A Cross-sectional Study of the Magnitude, Barriers, and Outcomes of HIV Status Disclosure among Women Participating in a Perinatal HIV Transmission Study, "The Nevirapine Repeat Pregnancy Study"**

Kiweewa, F.M., Bakaki, P.M., McConnell, M.S., et al. *BMC Public Health* (September 2015), doi:10.1186/s12889-015-2345-6.

This nested prospective study described patterns, barriers, and outcomes of HIV status disclosure among HIV-positive women participating in the Nevirapine Repeat Pregnancy (NVP-RP) Study, conducted in Kampala, Uganda between June 2004 and June 2006. From November 2005 to June 2006, the authors conducted exit interviews with 85 HIV-1–positive mothers at their 12-month visit in the prospective arm of the NVP-RP study. Virtually all (99%) of these women had disclosed their HIV status to at least one other person: 38 percent to sex partners, 66 percent to parents, 69 percent to other relatives, and 30 percent to friends; 1 percent had disclosed to an employer. Reported barriers to disclosure included fear of separation and subsequent loss of financial support (34%); separation from partner (not having opportunities to disclose) (26%); and stigmatization (2%). Outcomes or consequences of disclosure included receiving social support (67%); neglect or separation from partner (8%); negative reactions (violence, stigmatization, confidantes telling others) (9%); and loss of monetary support (5%). The authors concluded that overall, the results of this study showed high HIV disclosure proportions, and that disclosure can potentially foster social support if programs include such activities as male involvement in perinatal care along with supportive counseling.

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## Combination Prevention

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### Measuring the Potential Impact of Combination HIV Prevention in Sub-Saharan Africa

**Khademi, A., Anand, S. and Potts, D. *Medicine* (September 2015), 94(37):e1453, doi: 10.1097/MD.0000000000001453.**

The authors of this study developed an analytical framework to estimate the effects of scaling up HIV education and providing universal access to treatment on HIV incidence, prevalence, and mortality. Using demographic and epidemiologic data from South Africa, they compared the HIV prevalence generated by the model with the actual HIV prevalence observed in South Africa from 1990 to 2000. The results showed that combining expanded HIV education and universal access to treatment significantly decreased both incidence rates (declining from 2.3% to 0.6%) and prevalence (declining from 15.1% to 9.3%) over the course of 15 years. Thus, the benefit of a combined strategy of universal access to treatment and HIV education scale-up was greater than the benefit of the two strategies implemented individually. The combined strategy decreased the incidence rate by 74 percent over the course of 15 years, whereas universal access to treatment and HIV education scale-up separately decreased incidence by 43 percent and 8 percent, respectively. Additionally, universal access to treatment alone averted 7,596,439 deaths, whereas combining universal access with HIV education scale-up averted 7,679,917 deaths over 15 years. The authors concluded that comprehensive combination prevention might have a larger impact on containing the epidemic than implementing separate prevention programs. They recommended designing effective combination prevention programs in sub-Saharan Africa.

[View Abstract](#)

### HIV Prevention and Care Services for Female Sex Workers: Efficacy of a Targeted Community-based Intervention in Burkina Faso

**Traore, I.T., Meda, N., Hema, N.M., et al. *Journal of the International AIDS Society* (September 2015), 18(1):20088. doi: 10.7448/IAS.18.1.20088, eCollection 2015.**

This prospective, interventional cohort study among 321 HIV-uninfected female sex workers (FSWs) aged 18–25 years in Ouagadougou, Burkina Faso, conducted from 2009 to 2011, assessed the impact of a comprehensive, dedicated intervention targeting FSWs. The intervention included locally available combined prevention and care, including peer-led education sessions, free syndromic management of sexually transmitted infections, condoms and hormonal contraceptives, psychological support, and free general medical and HIV care. At enrolment and during subsequent quarterly visits, participants completed a standardized questionnaire documenting sexual behaviors and alcohol consumption during the previous week, including the number and type of sexual partners; received a physical examination; and provided urine, vaginal, and endocervical samples, as well as a blood sample after a voluntary HIV counseling session. No seroconversion occurred during the study, though the modeled seroconversion rate was 1.23 infections per 100 person-years. Although the average number of casual clients did not change during follow-up, the odds of consistent condom use significantly increased; and the adjusted odds of having more than one regular client diminished significantly. Moreover, the odds of consistent condom use with regular clients increased over time. The authors concluded that integrating community-based prevention had a significant impact on HIV incidence among young FSWs in Burkina Faso.

[View Abstract](#)

## **A Situational Analysis Methodology to Inform Comprehensive HIV Prevention and Treatment Programming, Applied in Rural South Africa**

Treves-Kagan, S., Naidoo, E., Gilvydis, J.M., et al. *Global Public Health* (September 2015), e-publication ahead of print.

This paper described the methodology for conducting a situational analysis in 2012 in two districts in North West Province, South Africa, conducted to ensure that a planned comprehensive prevention program would respond to the local needs. The analysis focused on characterizing communities' needs, existing resources, and cultural and structural barriers to health care. Specifically, the study sought to: (1) characterize the local epidemic profile (key populations, key drivers); (2) identify how sociocultural and service delivery contexts affected the epidemic; and (3) document opportunities for program partnerships and existing best practices. The authors described the analysis in terms of (1) *laying the foundation* (obtaining permission to conduct research); (2) *preparing for field work* (developing data collection tools and gathering existing data); (3) *field work* (interviews, focus groups, and service delivery assessments); (4) *sampling* (determining the sample size and ensuring inclusion of diverse conditions and populations); (5) *data analysis* (qualitative and quantitative analysis that includes coding transcripts and field notebooks). The report also described the method's strengths: yielding acceptable data breadth and saturation; producing data that translated into actionable findings to inform comprehensive HIV programming; and building community partnerships, buy-in, and support for intervention strategies. The authors said that this methodology could be used to guide community engagement and develop locally appropriate combination HIV prevention programs.

[View Abstract](#)

## **Finding HIV in Hard to Reach Populations: Mobile HIV Testing and Geospatial Mapping in Umlazi Township, Durban, South Africa**

Bassett I.V., Regan, S., Mbonambi, H., et al. *AIDS and Behavior* (September 2015), 19(10): 1888–1895.

To optimize the effectiveness of community-based mobile HIV testing by the iThembalabantu Clinic in Umlazi Township, South Africa, the authors evaluated the number and characteristics of the population being tested during site visits. From July to November 2011, the researchers collected programmatic data from adults who self-presented for testing at the mobile HIV testing units at malls, taxi stands, and markets in Umlazi (mobile testers) and at the iThembalabantu HIV clinic (IPHC testers). The authors found that the mobile testing units attracted hard-to-reach populations, specifically men, who are less likely than women to seek HIV testing in clinic-based programs. Mobile testing also attracted proportionally more young people, which is especially important, since their HIV prevalence is high and increases rapidly with age. The sites demonstrating the highest HIV prevalence were supermarkets and taxi ranks. Almost a quarter of mobile clients sought HIV testing more than five kilometers from their homes, indicating that some people prefer being tested for HIV in more remote locations where they will not be recognized. The authors concluded that using mobile units in the highest-yield (hot spot) locations could dramatically increase the number of HIV cases detected, particularly among hard-to-reach populations such as men and young people.

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## Structural Prevention

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### **Sexual Communication Self-efficacy, Hegemonic Masculine Norms and Condom Use among Heterosexual Couples in South Africa**

**Leddy, A., Chakravarty, D., Dladla, S., et al. *AIDS Care* (September 2015), e-publication ahead of print.**

This study examined the relationship between couple-level sexual communication self-efficacy (SCSE) and consistent condom use, adjusting for the male partner's endorsement of hegemonic masculine norms (HMNs). HMNs, which value male "toughness," virility, and dominance over women, are believed to play a key role in the heterosexual HIV epidemic in South Africa. Couples SCSE, defined as a couple's confidence in their ability to communicate about sexual risk reduction, could be a key leverage point for HIV prevention interventions for this high-risk group. The authors interviewed 163 sexually active heterosexual couples to collect information on demographics, relationship dynamics, and sexual activity. Analysis showed that the odds that couples used condoms were lower when male partners reported moderate to high endorsement of HMNs, compared to couples whose male partner reported low endorsement of HMNs. Additionally, couples with higher levels of SCSE, and those who participated in couple HIV testing and counseling, had increased odds of consistent condom use. Mutual knowledge of joint serostatus and relationship duration were not significantly associated with condom use. The authors concluded that future interventions should focus on promoting gender-equitable norms while also equipping couples with the tools for improving SCSE and fostering partners' ability to work together to achieve improved sexual and reproductive health outcomes.

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### **The Impact of Alcohol Use and Related Disorders on the HIV Continuum of Care: A Systematic Review: Alcohol and the HIV Continuum of Care**

**Vagenas, P., Azar, M.M., Copenhaver, M.M., et al. *Current HIV/AIDS Reports* (September 2015), e-publication ahead of print.**

The authors reviewed 53 papers published between 2010 and 2015 on the impact of alcohol use and related disorders (AUDs) upon each stage of the HIV treatment cascade, given recommendations to provide antiretroviral therapy (ART) earlier in the course of their disease. Most of the studies (77%) found that alcohol use negatively affected one or more stages of the HIV care continuum. Two studies that addressed more than one step in the cascade found a negative link between alcohol use and at least one stage of the cascade. One study found a negative association between alcohol use and a specific stage of the HIV cascade, ART adherence—demonstrating lower adherence with greater alcohol use. Negative links between alcohol use and specific steps in the HIV treatment cascade were seen in countries with both low and high levels of per capita alcohol use. The authors concluded that the best approach for improving HIV treatment outcomes in HIV-positive persons with AUDs will be to ensure high-quality integration of prevention and treatment services, including alcohol treatment, within clinical care settings.

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### Assessment of Epidemic Projections Using Recent HIV Survey Data in South Africa: A Validation Analysis of Ten Mathematical Models of HIV Epidemiology in the Antiretroviral Therapy Era

Eaton, J.W., Bacaër, N., Bershteyn, A., et al. *The Lancet Global Health* (October 2015), 3(10): e598–608, doi: 10.1016/S2214-109X(15)00080-7.

This study compared 10 mathematical model projections of HIV prevalence, HIV incidence, and antiretroviral therapy coverage for South Africa against data from a large household survey done in 2012, seeking to validate past model projections. The authors reported that five models projected that prevalence in adults aged 15–49 years in 2012 would change by  $\leq 0.3$  percentage points from prevalence in 2008. Three models projected declines of 0.7 to 1.3 percentage points; one projected an increase of 0.9 percentage points. However, the household survey estimated that adult prevalence increased from 16.9 percent in 2008 to 18.8 percent in 2012. The disparity between the 2012 survey estimate and those in the 10 models was mainly because eight of the models projected that prevalence would decline among men, whereas 2012 household survey data estimated that prevalence increased by 2.9 percent among men. The authors concluded that the models might have been overly optimistic, especially for mid-aged adults (age 25–49 years), among whom prevalence and incidence were consistently higher than anticipated. However, they urged program planners and implementers to continue to collect surveillance and trial data to validate and improve the information provided through mathematical models.

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### Youth, Technology, and HIV: Recent Advances and Future Directions

Hightow-Weidman, L.B., Muessig, K.E., Bauermeister, J., et al. *Current HIV/AIDS Reports* (September 2015), e-publication ahead of print.

The authors synthesized recent observations and experimental studies on HIV, technology prevention, and care for young people. The analysis included 66 articles published in English between January 1, 2014 and May 1, 2015. The authors presented data in several categories including:

- *Use of technology and sexual risk.* Research suggests a relationship between online social networking and sexual risk behaviors among youth, especially the use of geosocial networking apps to find sex partners among young men who have sex with men (MSM).
- *Social media.* While research indicates that social media can be an effective way to reach young people, most studies to date were preliminary, limited in methodologies, and mainly centered on evaluating how youth use social media and the resulting health implications.

Other categories included: acceptability of technology for sexual health promotion, HIV technology interventions for youth outside of the US, and SMS texting. The authors concluded that technology, including mobile technologies and social media, offers powerful tools to reach, engage, and retain youth and young adults in HIV prevention and care interventions, and called for the continued development of new technology-based HIV interventions.

[View Abstract](#)

## The Global Fund to Fight AIDS, Tuberculosis and Malaria's Investments in Harm Reduction Through the Rounds-based Funding Model (2002–2014)

Bridge, J., Hunter, B.M., Albers, E., et al. *The International Journal of Drug Policy* (September 2015), doi: <http://dx.doi.org/10.1016/j.drugpo.2015.08.001>.

The authors of this study reviewed grant budget data for the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) between 2002 and 2014 to develop a comprehensive dataset on the Global Fund's investments in harm reduction for people who inject drugs (PWID). They identified 151 grants for 58 countries and one regional proposal, with a total budget of US\$620 million. Of the 58 countries, 21 were from Eastern Europe and Central Asia, 17 from Asia, 10 from the Middle East and North Africa, 7 from sub-Saharan Africa, and 3 from Latin America and the Caribbean; the regional grant was for the Middle East and North Africa Harm Reduction Network. Global Fund investments targeting PWID mainly focused on the nine interventions comprising the United Nations' "comprehensive package" for PWID, with 15 percent allocated overall for program management and grant overheads. The budget analysis also identified US\$7.7 million for interventions and activities in compulsory drug detention centers in Asia. The authors recommended using this study as a baseline, and undertaking further analysis to understand the impact of the new funding model on harm reduction allocations as new grant agreements are signed. The analysis should also inform the development of the Global Fund's new strategy for 2017–2021.

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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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# AIDSFree Prevention Update



## *December 2015*

This is the December 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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The AIDSFree Prevention Update is made possible by the generous support of the American people with support from the U. S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree), number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, The International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. The authors' views expressed in this publication do not necessarily reflect the views of USAID or the U.S. Government.



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## **Estimating Efficacy in a Randomized Trial with Product Nonadherence: Application of Multiple Methods to a Trial of Preexposure Prophylaxis for HIV Prevention**

**Murnane, P.M., Brown, E.R., Donnell, D., et al. *American Journal of Epidemiology* (October 2015), 182(10): 848–56, doi: 10.1093/aje/kwv202.**

The authors used data from the Partners Pre-exposure Prophylaxis (PrEP) study to estimate the effectiveness of PrEP if all participants maintained continuously high (daily) adherence. Partners study participants (4,747 serodiscordant heterosexual couples) were randomized to receive tenofovir (TDF), co-formulated TDF/emtricitabine (FTC), or placebo. Among participants with an estimated 100 percent probability of high adherence, the risk of HIV acquisition diminished by 81 percent for TDF and 88 percent for TDF/FTC relative to placebo. A 90 percent probability of high adherence reduced the estimated risk of HIV acquisition by 78 percent for TDF and 84 percent for TDF/FTC relative to placebo. Among those predicted to have poor adherence, the risk of HIV acquisition was greater for TDF and TDF/FTC, consistent with an expected lack of protective effect when no study medication is consumed. The authors concluded that the efficacy of PrEP with consistent high adherence is greater than 80 percent with either TDF alone or TDF/FTC.

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## **Feasible, Efficient and Necessary, without Exception – Working with Sex Workers Interrupts HIV/STI Transmission and Brings Treatment to Many in Need**

**Steen, R., Wheeler, T., Gorgens, M., et al. *PLOS ONE* (October 2015), 10(10): e0121145, doi: 10.1371/journal.pone.0121145, eCollection 2015.**

This summary, based on information from 18 articles and highlighting decades of evidence, argued that protecting sex workers is feasible and necessary for controlling HIV and sexually transmitted infection (STI) epidemics globally. The authors also called for expanded access to antiretroviral therapy (ART) care and supportive interventions for sex workers. They based their recommendations on several common findings from the selected articles. First, despite the importance of sex work to HIV/STI transmission, estimated resources for supporting targeted interventions total less than 1 percent of program expenditures in countries with generalized HIV epidemics. Second, interventions must be brought to scale. In Asia, large-scale implementation of basic interventions in sex work settings, supported by structural change, has turned around several rapidly expanding HIV epidemics. Third, community mobilization is vital. For example, where sex work establishments (as opposed to individual workers) enforced condom use, condom use increased, while HIV/STI transmission decreased. Fourth, given the very high HIV burden and transmission risk in sex work, expanding ART coverage for HIV-positive workers, along with prevention for the most active workers, would substantially enhance prevention. The authors concluded that targeted treatment and prevention interventions with sex workers should be scaled up to reduce their high HIV/STI burden and avert serious morbidity and mortality among sex workers themselves.

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## Recruiting Male Partners for Couple HIV Testing and Counselling in Malawi's Option B+ Programme: An Unblinded Randomised Controlled Trial

Rosenberg, N.E., Mtande, T.K., Saidi, F., et al. *The Lancet HIV* (November 2015), 2(11): e483-e491, doi: 10.1016/S2352-3018(15)00182-4.

This study compared two strategies for recruiting male partners for couples HIV testing and counseling (CHTC)—invitation-only versus invitation plus tracing (a visit to a male partner by the community health worker)—at a maternity hospital in Malawi. The authors randomly assigned 200 pregnant women who had tested HIV-positive and had not yet had CHTC to either the invitation-only group (n=100) or the invitation-plus-tracing group (n=100). In the invitation-only group, women's male partners were invited to present to the antenatal clinic. In the invitation-plus-tracing group, partners were invited and were traced if they did not present. One week after the initial visit, women were asked to present with partners for a couples' visit at which a research nurse delivered information on pregnancy topics, including nutrition, alcohol, malaria, antenatal care-seeking, facility delivery, and the importance of CHTC. While more than half of women were able to recruit male partners to CHTC with an invitation alone, the addition of tracing enabled nearly three-quarters of women to bring their partners to CHTC. Additionally, women in the invitation-plus-tracing group were less likely to default early from the Option B+ program, and more likely to initiate safer sex practices. The authors concluded that an invitation-plus-tracing strategy was effective at increasing CHTC uptake and recommended its further scale-up.

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## Behavioral Prevention

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### Adolescent HIV Risk Reduction in the Bahamas: Results from Two Randomized Controlled Intervention Trials Spanning Elementary School through High School

Stanton, B., Dinaj-Koci, V., Wang, B., et al. *AIDS and Behavior* (October 2015), E-publication ahead of print.

The authors of this article used data from two studies that examined the effects of a longitudinal, school-based, combined parent-child HIV prevention intervention conducted during pre- and mid-adolescence. The study involved 598 students in New Providence, Bahamas who had enrolled in the studies in both grade 6 (2005) and grade 10 (2009). The student intervention in both studies included interactive discussions, role-plays, and games to increase knowledge and skills regarding sexual-risk avoidance. Also, in both studies, the students' parents were randomized to participate with their children in a parental monitoring and communication intervention, an intervention about career planning, or no intervention. Findings showed high intention to use condoms in all groups. However, only students whose parents had attended interventions reported significantly higher condom use, suggesting the importance of parents to HIV prevention in youth. Additionally, while recipients of only the grade-6 intervention showed protective effects that were sustained over time, recipients of both grade 6 and grade 10 interventions appeared to receive additional benefits spanning a greater time period. These findings suggested that school-based programs delivered at different developmental periods are important, both to reach youth who may have missed the intervention earlier in adolescence and to reinforce the effects of the earlier intervention.

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### **A 15-year Study of the Impact of Community Antiretroviral Therapy Coverage on HIV Incidence in Kenyan Female Sex Workers**

**McClelland, R.S., Richardson, B.A., Cherutich, P., et al. *AIDS* (November 2015), 29(17): 2279–2286, doi: 10.1097/QAD.0000000000000829.**

The authors of this 15-year prospective study hypothesized that increasing access to community antiretroviral therapy (ART) coverage would lead to lower HIV incidence in female sex workers (FSWs) in Mombasa District, Kenya, independent of their individual-level HIV risk factors. HIV-negative FSWs were interviewed about their risk behavior, and received testing for sexually transmitted infections (STIs) including HIV during outreach visits to local bars. The women also had a monthly physical examination with collection of blood and genital specimens for diagnosis of HIV and STIs. Between February 1993 and December 2012, 1,404 FSWs contributed 4,335 woman-years of follow-up. The authors reported that the estimated HIV prevalence peaked in 2000 at 13.4 percent, and declined to 5.6 percent in 2012. The ART rollout began in 2003, and by 2012, an estimated 52 percent of HIV-positive individuals were receiving treatment. This study, the authors said, showed that community ART coverage was inversely associated with HIV incidence, and that each 10 percent increase in coverage was associated with a 23 percent reduction in FSWs' risk of HIV acquisition. The intervention had no impact on herpes simplex virus type-2 incidence, suggesting that the effect of community ART coverage may be specific to HIV. The authors concluded that increasing ART coverage in the community might reduce FSWs' risk of contracting HIV.

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### **Tracing Defaulters in HIV Prevention of Mother-to-child Transmission Programmes through Community Health Workers: Results from a Rural Setting in Zimbabwe**

**Vogt, F., Ferreyra, C., Bernasconi, A., et al. *Journal of the International AIDS Society* (October 2015), 18(1): 20022, doi: 10.7448/IAS.18.1.20022, eCollection 2015.**

This retrospective cohort study assessed the effects of community-health-worker-based defaulter tracing (CHW-DT) on retention in care and mother-to-child HIV transmission in Zimbabwe. The authors analyzed records from 1,878 HIV-positive pregnant women and their newborns in a rural prevention of mother-to-child transmission (PMTCT) program between 2010 and 2013. They compared retention rates at delivery, nevirapine (NVP) initiation at three days postpartum, and HIV testing and cotrimoxazole (CTX) initiation at six weeks postpartum, before and after the introduction of CHW-DT. Under the CHW-DT system, introduced in April 2012, all defaulting pregnant mothers and their newborns were traced and received home visits by volunteers, who provided counseling on ante- and perinatal PMTCT services and infant vaccination. Post-intervention, cumulative retention increased only moderately, and only in certain periods, relative to pre-intervention retention (87.3% versus 85.7%, respectively, before delivery; 81.0% and 82.9% until NVP initiation; 41.7% and 52.3% until CTX initiation; 34.4% and 47.0% until infant HIV testing; and 32.6% and 29.7% until HIV test result collection). The authors concluded that the CHW-DT intervention did not increase retention or reduce perinatal HIV transmission significantly. They argued that community health workers can complement, but not replace, necessary improvements in service provision by the regular health system.

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## Are Geographical "Cold Spots" of Male Circumcision Driving Differential HIV Dynamics in Tanzania?

Cuadros, D.F., Branscum, A.J., Miller, F.D., et al. *Frontiers in Public Health* (September 2015), 3:218, doi: 10.3389/fpubh.2015.00218, eCollection 2015.

The authors applied spatial epidemiology techniques to data from three rounds (from 2004 through 2012) of Demographic and Health Surveys in Tanzania to understand transmission dynamics in areas with low and high male circumcision (MC) prevalence, and the impact of voluntary medical male circumcision (VMMC) on HIV incidence. They identified two MC "cold spots" where analysis indicated a significantly low MC/high HIV prevalence association. MC prevalence within the cold spots in 2004 was 41.83 percent, declining slightly to 40.93 percent in 2012. MC prevalence outside the cold spots remained nearly unchanged during that period (91.66 to 91.67 percent). Males located within the MC cold spots had a higher risk of HIV infection relative to males located outside these areas. The authors concluded that MC could be an important factor in the geographical distribution of Tanzania's HIV epidemic, and that the ongoing scale-up of VMMC may have a considerable impact on the epidemic. They added that the HIV infection burden could be concentrating in the female population in MC cold spots, and the risk of HIV infection for females located in these areas could be increasing over time. Therefore, programmers should consider adding initiatives to target women along with VMMC programs.

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## Combination Prevention

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### Effect of a Congregation-based Intervention on Uptake of HIV Testing and Linkage to Care in Pregnant Women in Nigeria (Baby Shower): A Cluster Randomised Trial

Ezeanolue, E.E., Obiefune, M.C., Ezeanolue, C.O., et al. *The Lancet Global Health* (November 2015), (11): e692–700, doi: 10.1016/S2214-109X(15)00195-3.

Between January 2013 and August 2014, this two-arm cluster randomized trial compared the effects of a congregation-based intervention versus standard referral for testing on uptake of HIV testing by pregnant women in rural Enugu State, Nigeria. The church-based Healthy Beginning Initiative provided free, integrated, on-site laboratory tests during baby showers in 20 intervention churches, while women at baby showers at 20 control churches received referral to a health facility (the standard of care). The 3,002 participants in both intervention and control groups received three study visits: one at baseline (recruitment), one during the baby shower, and one at 6–8 weeks after delivery. The primary outcome was a confirmed HIV test during pregnancy. HIV prevalence did not differ between groups. However, women in the intervention group were more likely than those in the control group to be linked to care before delivery, and were more likely to access care and receive antiretroviral therapy during pregnancy. The authors concluded that a culturally adapted, congregation-based approach delivered by trained volunteer health advisors can be used effectively to increase HIV testing in pregnant women in remote regions of the country.

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## Official Invitation Letters to Promote Male Partner Attendance and Couple Voluntary HIV Counselling and Testing in Antenatal Care: An Implementation Study in Mbeya Region, Tanzania

Jefferys L.F., Nchimbi, P., Mbezi, P., et al. *Reproductive Health* (October 2015), 12(1), doi: 10.1186/s12978-015-0084-x.

This study in Mbeya Region, Tanzania assessed the acceptability and effectiveness of written invitations for male partners to attend joint antenatal care (ANC) and couples voluntary testing and counseling (CVCT). Data were collected from a prospective, longitudinal cohort at three health centers at different locations in Mbeya Region. ANC clients (n=318) received a letter inviting their partners to attend the next routine ANC visit, explaining that information on pregnancy, parenthood, and other important health issues would be given (but not mentioning HIV testing). Nearly all women who returned to the clinic (98%) reported handing the letter to their partners, and said that partners who received an invitation were supportive. Partner attendance rate ranged between 31 percent and 75.8 percent, and averaged 53.5 percent across all sites. When the partner attended a joint ANC session, 81 percent of the couples received CVCT, (in the remaining 19%, only the women tested). Women overall found the experience very positive—saying that the counselor was helpful (95%), the experience was good (91%), and there were no difficulties during mutual disclosure of HIV status (90%). The authors concluded that official invitation letters are a feasible intervention in a resource-limited sub-Saharan context, and an effective way to encourage men to attend ANC and CVCT.

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## Uptake and Yield of HIV Testing and Counselling among Children and Adolescents in Sub-Saharan Africa: A Systematic Review

Govindasamy, D., Ferrand, R.A., Wilmore, S.M., et al. *Journal of the International AIDS Society* (October 2015), 18(1): 20182, doi: 10.7448/IAS.18.1.20182, eCollection 2015.

This electronic review of literature on HIV testing and counseling (HTC) among children and adolescents (5–19 years) from 2010 to 2013 investigated the acceptability, yield, and prevalence of different HTC strategies for this group in sub-Saharan Africa (SSA). A total of 21 studies across eight countries (Kenya, Malawi, South Africa, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe) were included. Seven studies used provider-initiated testing and counselling (PITC) in either inpatient or outpatient settings. Six studies were conducted in the context of seroprevalence surveys; of these, two provided HTC in the home environment, and four used a mobile or outreach approach. Four studies reported data from mass testing campaigns that used outreach or home-based strategies. A family-centered approach was used in five studies, and one study reported results from a school-linked testing campaign among primary schoolchildren aged 5–11 years. The authors reported that acceptance, yield, and prevalence were highest when testing was offered in inpatient settings (86.3%, 12.2%, and 15.4%, respectively) and outpatient settings (69.5%, 7.4%, and 11.3%) as part of PITC. Outreach HTC strategies had the lowest acceptance (60.4%), yield (0.6%), and prevalence (1.3%). The authors concluded that HTC approaches delivered within communities outside of a health care facility have a high acceptance among this priority age group.

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## Structural Prevention

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### HIV Epidemic and Human Rights among Men Who Have Sex with Men in Sub-Saharan Africa: Implications for HIV Prevention, Care, and Surveillance

**Abara, W.E. and Garba, I. *Global Public Health* (October 2015), E-publication ahead of print.**

This review paper examined the HIV epidemic among men who have sex with men (MSM) in sub-Saharan Africa (SSA) and highlighted factors that facilitate its spread. The authors organized by these categories:

- *Epidemiology*: Studies under this category demonstrated the concentrated nature of the HIV epidemic and transmission risk among MSM in SSA; the public health impact of ignoring the epidemic on the continent's current HIV prevention efforts; and the need to prioritize HIV prevention and care, surveillance, and research programs for MSM.
- *Social determinants*: Among MSM, internalized homophobia leads to negative attitudes and actions that can manifest as shame, fear, anxiety, and loss of self-worth. Additionally, stigma affects social vulnerability and is fundamental to access to health care.
- *Stigma, discrimination, the law, and HIV risk among MSM*: Many countries in SSA criminalize male-to-male sexual relationships. These laws obstruct HIV prevention, care, and health policies that target MSM, while prompting behaviors and practices that facilitate HIV transmission.

The authors urged implementation of rights-based standards, along with continued collaborative partnerships, collective advocacy, and concerted action to ensure that MSM and all HIV-positive individuals in SSA have access not only to HIV prevention and care, but also to the full range of rights that help ensure equal opportunities for health and wellness.

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### HIV-Alcohol Risk Reduction Interventions in Sub-Saharan Africa: A Systematic Review of the Literature and Recommendations for a Way Forward

**Carrasco, M.A., Esser, M.B., Sparks, A., and Kaufman, M.R. *AIDS and Behavior* (October 2015), E-publication ahead of print.**

The authors reviewed 19 peer-reviewed studies on HIV-alcohol risk reduction interventions in sub-Saharan Africa and summarized their findings and characteristics. All the interventions (implemented in Angola, Nigeria, South Africa, Uganda, Zambia, and Zimbabwe) promoted individual behavior change using strategies such as peer education, health trainings and workshops, and health education videos. The authors reported that 12 of the 16 interventions that reported on sexual risk behavior outcomes (condom use) found significant effects, while four interventions found no significant effects. While studies targeting youth in schools had limited efficacy, those targeting women who use drugs, sex workers, and clients at clinics for testing and diagnosis were more efficacious. These showed significant effects in reducing alcohol consumption or changing HIV-alcohol or sexual risk behaviors. Studies targeting drinking venue patrons were efficacious when delivered as a short intervention in a community setting, but not when delivered in these venues by peers. Studies targeting soldiers showed efficacy when implemented at the community level, but not at military bases. The authors concluded that community-based interventions, when embedded into ongoing prevention and treatment programs of various kinds, may be effective in addressing HIV-alcohol risk behaviors in the short term.

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## Arresting HIV: Fostering Partnerships between Sex Workers and Police to Reduce HIV Risk and Promote Professionalization within Policing Institutions: A Realist Review

Tenni, B., Carpenter, J., and Thomson, N. *PLOS ONE* (October 2015), 10(10): e0134900, doi: 10.1371/journal.pone.0134900, eCollection 2015.

This review highlighted examples of positive partnerships between police and sex workers or sex worker organizations to prevent HIV transmission and examined factors contributing to the success of these partnerships. Despite the continuing criminalization of sex work, there are examples in the literature in which programs that focused on sex workers collaborated with police to increase policemen's understanding of the sex industry, and to solicit police support in ensuring sex workers' access to services. For example, the Resourcing Health and Education in the Sex Industry (RhED) program in Victoria, Australia uses a social model of health to promote physical, emotional, and social health among sex workers through harm minimization, health promotion, social inclusion, and community participation. RhED's Ugly Mugs project liaises with local police to report and prosecute perpetrators of violence against sex workers. Another program, Thailand's Sex Workers in Network Group, provides services for male sex workers in Bangkok, and includes an intern program for police recruits, designed to build mutual respect to enable sex workers to access prevention and treatment services without fear of arrest. The authors emphasized that developing police strategies, instructions, and standard operating protocols has been shown to have some impact in addressing HIV risk among key affected populations, including sex workers.

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## Oral and Injectable Contraceptive Use and HIV Acquisition Risk Among Women in 4 African Countries: A Secondary Analysis of Data from a Microbicide Trial

Balkus, J.E., Brown, E.R., Hillier, S.L., et al. *Contraception* (October 2015), pii: S0010-7824(15)30033-0. doi: 10.1016/j.contraception.2015.10.010, E-publication ahead of print.

The authors estimated the association between self-reported use of injectable hormonal contraceptives or HCs (depot medroxyprogesterone acetate, or DMPA, or norethisterone oenanthate, or NET-EN) or oral contraceptive pills and HIV acquisition risk among 2,830 African women enrolled in the analysis. The HIV Prevention Trials Network (HPTN) 035 microbicide trial, a multi-site, randomized, controlled trial, compared BufferGel and 0.5 percent PRO 2000 gel against two comparator arms (hydroxycellulose placebo and no gel). During the study, participants were given HIV testing and were interviewed about self-reported contraceptive use and sexual behaviors. The authors reported that they did not observe a significant increased risk of HIV acquisition among women using injectable or oral contraceptive methods. They did not observe statistically significant interactions between baseline age or herpes simplex virus status and HC method. They concluded that these findings supported the World Health Organization's recommendation that women at high risk for HIV, including those using progestogen-only injectable HC, should be strongly advised to always use condoms in addition to other HIV prevention measures.

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## Trends in HIV Prevalence in Pregnant Women in Rural South Africa

Kharsany, A.B., Frohlich, J.A., Yende-Zuma, N., et al. *Journal of Acquired Immune Deficiency Syndromes* (November 2015), 70 (3): 289–295, doi: 10.1097/QAI.0000000000000761.

This study assessed HIV prevalence trends in 5,075 pregnant women in the rural Vulindlela sub-district of KwaZulu-Natal, South Africa following the introduction and scale-up of antiretroviral therapy (ART), and described risk factors associated with HIV transmission. The authors conducted cross-sectional surveys from October through November of each year from 2001 to 2013 among pregnant women presenting at primary health care clinics for their first prenatal care visit. The time periods 2001 to 2003 were defined as *pre-ART*, 2004 to 2008 as *early ART*, and 2009 to 2013 as *contemporary ART rollout*, to correspond with the substantial scale-up of ART program. The authors reported that overall, HIV prevalence increased during each period (35.3%, 39.0%, and 39.3%, respectively). However, age-stratified analysis revealed nuances. Among teenage women (<20 years), HIV prevalence declined during these same periods (22.5%, 20.7%, and 17.2%), while increasing significantly in women 30 years and older. Moreover, teenage girls with male partners aged 20–24 and >25 years had a 1.7-fold and 3-fold higher HIV prevalence, respectively. The authors concluded that targeted interventions for pregnant women, especially for those in age-disparate relationships, are needed to change the trajectory of this HIV epidemic.

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