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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In Focus

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.

View Open Access Article

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

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

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

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

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 indictors 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

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.

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

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