AIDSFree Prevention Update

January 2016

This is the January 2016 edition of the AIDSFree Prevention Update, an initiative of the Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project. The AIDSFree Prevention Update is your monthly snapshot of current peer-reviewed literature and state-of-the-art program resources, tools, and curricula on HIV prevention. This month, we're featuring a double edition to highlight major updates released around World AIDS Day.

In this issue:

In Focus

Behavioral Prevention

Biomedical Prevention

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.

HIV Pre-exposure Prophylaxis in Transgender Women: A Subgroup Analysis of the iPrEx Trial

Participants' Explanations for Non-adherence in the FEM-PrEP Clinical Trial

A Reevaluation of the Voluntary Medical Male Circumcision Scale-Up Plan in Zimbabwe

A Comparison of Sexual Risk Behaviours and HIV Seroprevalence among Circumcised and Uncircumcised Men before and after Implementation of the Safe Male Circumcision Programme in Uganda

Structural Prevention

Sankofa Pediatric HIV Disclosure Intervention Cyber Data Management: Building Capacity in a Resource-limited Setting and Ensuring Data Quality

Are Couple-based Interventions More Effective than Interventions Delivered to Individuals in Promoting HIV Protective Behaviors? A Meta-analysis

Facilitators and Barriers to HIV Screening: A Qualitative Meta-synthesis

Risk of Sexual, Physical and Verbal Assaults on Men Who Have Sex with Men and Female Sex Workers in Coastal Kenya

Epidemiology

Estimating HIV Prevalence in Zimbabwe Using Population-Based Survey Data

Comparison of Sexual Risk, HIV/STI Prevalence and Intervention Exposure among Men Who Have Sex with Men and Women (MSMW) and Men Who Have Sex with Men Only (MSMO) in India: Implications for HIV Prevention

Reports, Tools & Guidelines

Applying Public Health Principles to the HIV Epidemic — How Are We Doing?

The Case for Strategic Health Diplomacy: A Study of PEPFAR

UNAIDS 2016-2021 Strategy: On the Fast-track to End AIDS

PEPFAR Evaluation Standards of Practice Version 2.0

Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: What's New

AIDS by the Numbers: 2015

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

This document, released on the World AIDS Day 2015, provides an update on the global status of the HIV epidemic. According to the press release, the epidemic has been forced into decline. New HIV infections and AIDS-related deaths have fallen dramatically since the peak of the epidemic. The document cites a 35 percent decrease in new HIV infections; a 42 percent decrease in AIDS-related deaths since the peak in 2004; a 58 percent decrease in new HIV infections among children since 2000; and an 84 percent increase in access to antiretroviral therapy since 2010. Additionally, the global response to HIV has averted 30 million new HIV infections and 7.8 million AIDS-related deaths since 2000. While acknowledging these achievements, the report also emphasizes that accelerating the AIDS response in low- and middle-income countries could avert 28 million new HIV infections and 21 million AIDS-related deaths between 2015 and 2030, saving US$24 billion annually in additional HIV treatment costs. The next phase of the global response must accommodate new circumstances, opportunities, and evidence, including a rapidly shifting context and a new, sustainable development agenda. The single priority of the HIV response for the next 15 years is to end the epidemic by 2030.

View Full Report (PDF, 790 KB)

On-Demand Preexposure Prophylaxis in Men at High Risk for HIV-1 Infection

Molina, J.M., Capitant, C., Spire, B., et al. *New England Journal of Medicine* (December 2015), 373(23):2237-2246, doi: 10.1056/NEJMoa1506273.

This double-blind, randomized trial of pre-exposure HIV-1 prophylaxis (PrEP) among men who have unprotected anal sex with men assessed whether the use of a combination of tenofovir disoproxil fumarate and emtricitabine (TDF-FTC) before and after sexual activity provided protection against HIV-1 infection in this population. Between February 2012 and October 2014, 400 HIV-negative men were enrolled (199 in the TDF-FTC group and 201 in the placebo group). Participants were instructed to take two pills of TDF-FTC or placebo with food 2 to 24 hours before sex, followed by a third pill 24 hours after the first drug intake, and a fourth pill 24 hours later. They were offered prevention services at every study visit during the 9.3-month follow-up. In the modified intention-to-treat analysis (analysis without regard to adherence following enrollment), 16 HIV-1 infections developed after enrollment: 2 in the TDF-FTC group and 14 in the placebo group, suggesting an 86 percent reduction in the incidence of HIV-1 acquisition in the TDF-FTC group. Rates of adverse events were similar in the two groups, though the TDF-FTC group reported slightly higher rates of gastrointestinal and renal side effects. The authors concluded that the use of PrEP with TDF-FTC among high-risk men could contribute to a reduced incidence of HIV-1 infection.

View Abstract

The HIV Treatment Gap: Estimates of the Financial Resources Needed versus Available for Scale-Up of Antiretroviral Therapy in 97 Countries from 2015 to 2020

Dutta, A., Barker, C., and Kallarakal, A., *PLOS ONE* (November 2015), doi: 10.1371/journal.pmed.1001907.

In 2015, the World Health Organization (WHO) issued revised guidance recommending antiretroviral therapy (ART) for all HIV-positive people upon diagnosis, regardless of CD4 count. This modeling analysis estimated eligibility for and use of ART in 97 countries from 2015 to 2020, and calculated the facility-level financial resources required to comply with WHO guidance. The analysis examined three scenarios: (1) continuation of countries' current policies on ART eligibility; (2) universal adoption of aspects of the WHO 2013 eligibility guidelines, and (3) expanded eligibility per the WHO 2015 guidelines and meeting the Joint United Nations Programme on HIV/AIDS (UNAIDS) "90-90-90" ART targets. The authors modeled uncertainty in the annual resource requirements for antiretroviral drugs, laboratory tests, facility-level personnel, and overhead. They found that the countries were unlikely to meet the UNAIDS treatment targets unless they adopted a test-and-offer approach and increased ART coverage. After projecting recent external and domestic funding trends, the authors estimated a six-year financing gap ranging from US$19.8 billion to $25.0 billion, including a gap for ART commodities alone between $14.0 and $16.8 billion. In addition, severe structural barriers, including stigma and discrimination and punitive policies targeting certain high-HIV-burden population groups, continue to raise barriers to the attainment of comprehensive HIV treatment globally.

View Full Study

Systematic Review and Meta-analysis of Community and Facility-based HIV Testing to Address Linkage to Care Gaps in Sub-Saharan Africa

Sharma, M., Ying, R., Tarr, G., Barnabas, R. *Nature* (December 2015), 528(7580):S77-S85, doi: 10.1038/nature16044.

This systematic review compared HIV testing and counseling (HTC) modalities, examining facility- and community-based approaches (home, mobile, index, key populations, campaign, workplace, and self-testing) in terms of populations reached, HIV positivity, CD4 count at diagnosis, and linkage to care. Most of the 126 eligible study analyses evaluated facility and home HTC. The authors identified far fewer studies on other types of community HTC: home self-testing (five), workplace self-testing (two), campaign (five), and workplace (four). Community HTC had higher coverage than facility testing, and HTC achieved the highest coverage through home and campaign approaches (70% and 76%, respectively). Mobile HIV testing reached the highest proportion of men (50%), and home HTC with self-testing reached the highest proportion of young adults (66%). Only five studies evaluated HIV testing for key populations (sex workers and men who have sex with men), but these interventions yielded high HIV positivity (38%) combined with the highest proportion of first-time testers (78%), indicating service gaps. Community testing with facilitated linkage achieved high linkage to care (95%) and antiretroviral initiation (75%). The authors concluded that expanding home and mobile testing and outreach to key populations with facilitated linkage can decrease the HIV burden and increase the proportion of men, young adults, and high-risk individuals who are linked to HIV prevention and treatment.

View Abstract

Ending AIDS — Is an HIV Vaccine Necessary?

Anthony, S., Fauci, M.D., and Marston, H.D. *New England Journal of Medicine* (December 2015), 370:495-498, doi: 10.1056/NEJMp1502020.

The authors of this article examined whether a vaccine is necessary to end the HIV pandemic. They noted that while the global reduction in HIV incidence has occurred without a vaccine, there remain substantial barriers to non-vaccine HIV prevention that can hinder public-sector prevention and treatment programs. The most challenging barrier is human behavior, given that an effective HIV response requires people to continually make positive health choices. The social context, the authors said, affects individual behavior and policy responses, often impeding the effectiveness of biomedically-based preventive interventions. Both cultural and policy factors also raise challenges: for example, fewer than one-quarter of the 20 million African men targeted for male circumcision have undergone the procedure; and laws against homosexuality in over 70 countries pose barriers to prevention and treatment. The road to HIV vaccine development has not been an easy one, but recent scientific advances in this area demonstrate the dynamic nature of HIV vaccine discovery and the promise of impending breakthroughs. The authors concluded that while continuing to scale up the delivery of antiretroviral therapy and prevention, the HIV prevention community should continue its commitment to vaccine science. The only guarantee of a sustained end of the HIV pandemic lies in a combination of non-vaccine prevention methods and the development and deployment of a safe and sufficiently effective HIV vaccine.

View Abstract

Behavioral Prevention

Sex and Secrecy: How HIV-status Disclosure Affects Safe Sex among HIV-positive Adolescents

Toska, E., Cluver, L.D., Hodes, R., and Kidia, K.K. *AIDS Care* (November 2015), 27(1):47-58, doi: 10.1080/09540121.2015.1071775.

This qualitative study in Eastern Cape, South Africa assessed whether knowledge of HIV status among HIV-positive adolescents (10–19 years old) and partners was associated with safer sex. HIV-positive adolescents (n=858; 52% female; 68.1% vertically infected) who had ever initiated antiretroviral treatment in one of the 41 health facilities in Eastern Cape participated in in-depth interviews, focus group discussions, and direct observation at five public health facilities. The authors found that 68.1 percent of participants knew their status; 41.5 percent of those who were sexually active and in relationships knew their partner's status; and 35.5 percent had disclosed to their partners. However, neither knowing a partner's status nor disclosing HIV status to a partner was associated with safer sex. Participants emphasized that they feared rejection, stigma, and public exposure if they disclosed to sexual and romantic partners. Counselling by health care workers for HIV-positive adolescents focused on the benefits of disclosure, but did not address the fears and risks associated with disclosure. The authors concluded that knowing one's status did not automatically lead to protective sexual behaviors in adolescents. They recommended that guidelines on counselling HIV-positive adolescents should focus on promoting safe sex with all sexual partners as the first priority, rather than promoting disclosure to sexual partners.

View Abstract

Voluntary Medical Male Circumcision In Resource-constrained Settings

Tobian, A.A., Adamu, T., Reed, J.B., et al. *Nature Reviews Urology* (November 2015), doi: 10.1038/nrurol.2015.253, e-publication ahead of print.

The authors of this review described available techniques for adolescent and adult surgical voluntary medical male circumcision (VMMC) and discussed the potential for medical devices to accelerate the scale-up of VMMC throughout East and Southern Africa. By the end of 2011, priority countries in East and Southern Africa had incorporated VMMC into their HIV prevention portfolios. Three basic surgical methods for VMMC are widely used in adolescents and adult men:

1. The *forceps-guided* method is the simplest of the three procedures; it can be performed by surgeons and non-physician clinicians who have been trained in the procedure, even if they do not have much surgical experience.
2. The *dorsal slit* method requires more surgical skill than the forceps-guided method, but is among the most widely used techniques for surgical circumcision among general and urological surgeons worldwide.
3. The *sleeve resection* method, which is the most complicated of the three methods, is best suited to hospital settings and requires an assistant.

The authors also provided a detailed overview of other VMMC options, such as elastic collar compression and collar clamp devices. These should make VMMC easier, safer, faster, and more acceptable; they also should be less expensive and less painful, and should not require follow-up visits. They called for continued improvements to VMMC devices to move them closer to maximum ease and safety of use.

View Abstract

Randomized Noninferiority Trial of Two Maternal Single-dose Nevirapine-sparing Regimens to Prevent Perinatal HIV in Thailand

Lallemant, M., Le Coeur, S., Sirirungsi, W., et al. *AIDS* (November 2015), 29(18): 2497–2507, doi:10.1097/QAD.0000000000000865.

This three-arm randomized clinical trial in Thailand compared two maternal perinatal single-dose nevirapine (sdNVP)-sparing regimens with standard zidovudine (ZDV)/sdNVP among 435 women between January 2009 and September 2010. The three randomized arms were as follows: (A) NVP-NVP arm: maternal intrapartum sdNVP; (B) Infant-only NVP arm; (C) Lopinavir/ritonavir (LPV/r) arm. Intent-to-treat transmission rates were 3.8 percent in arm A, 1.6 percent in arm B, and 1.4 percent in arm C. As-treated rates were 2.2 percent, 3.2 percent, and 1.5 percent, respectively. The trial was stopped early because of changes in Thai guidelines and failed to show the equivalence of the regimens. However, it demonstrated some important points: rates of transmission in all three study arms were low, and women who received prophylaxis for less than eight weeks were significantly more likely to transmit HIV. It appears that when mothers receive shorter treatment during pregnancy, treatment intensification in the peripartum period would be useful in further reducing transmission.

View Abstract

Nondaily Preexposure Prophylaxis For HIV Prevention

Anderson, P.L., García-Lerma, J.G., Heneine, W. *Current Opinion on HIV and AIDS* (January 2016), 11(1): 94–101, doi: 10.1097/COH.0000000000000213.

The authors of this article reviewed the preclinical and clinical information on nondaily pre-exposure prophylaxis (PrEP) as a strategy for HIV prevention, focusing on event-driven dosing. From a virological perspective, event-driven antiretroviral prophylaxis can be most effective when the drug is present within the first hours of exposure to HIV. However, the length of time that the drug must be present is less clear in this case. From a pharmacological perspective, it is important that the PrEP agents distribute and accumulate sufficiently in the affected mucosal tissue (e.g., vaginal, rectal, and penile). Initial findings from such studies as the Ipergay study among men who have sex with men (MSM) (among others), and substantial pharmacology data, suggest that MSM may have better adherence than women to time-driven and event-based dosing. However, the potential for event-driven oral dosing of emtricitabine/tenofovir disoproxil fumarate (TDF/FTC) for HIV prevention in women and heterosexual men is not yet known, though evidence from macaque studies support such dosing. The authors concluded that future research on event-driven PrEP in these populations should be guided by an understanding of the importance of mucosal drug concentrations for PrEP efficacy.

View Abstract

Current Concepts for PrEP Adherence in the PrEP Revolution: From Clinical Trials to Routine Practice

Haberer, J.E. *Current Opinion in HIV and AIDS* (January 2016), 11(1):10–17, doi: 10.1097/COH.0000000000000220.

The author reviewed interventions on adherence to pre-exposure prophylaxis (PrEP) to date, and presented recommendations for further research and best practices for clinical implementation. Drug detection is the only adherence measurement that documents ingestion; this measure was widely employed in PrEP clinical trials. Alternative approaches to drug detection include hair and dried blood spots. Numerous ongoing demonstration projects are also using electronic monitoring with medication event monitoring system, which offers a way of determining day-to-day adherence patterns and can be used to determine adherence and risk for HIV acquisition. However, despite the known role of adherence in PrEP efficacy, few PrEP adherence interventions have been developed and evaluated. Studies among men who have sex with men suggest several key considerations for a behavioral adherence intervention for PrEP, including motivations to use PrEP, barriers to PrEP use, and facilitators of PrEP use, among others. The authors concluded that enhanced counseling can be targeted to those who are struggling, and can be facilitated through technology such as two-way texting services. They also recommended that future research on PrEP adherence interventions should include more studies involving women, and especially adolescents, for whom adherence may be particularly challenging.

View Abstract

HIV Pre-exposure Prophylaxis in Transgender Women: A Subgroup Analysis of the iPrEx Trial

Deutsch, M.B., Glidden, D.V., Sevelius, J., et al. *The Lancet HIV* (November 2015), 2(12):e512-e519, doi:10.1016/S2352-3018(15)00206-4.

The authors of this study used data from the Pre-exposure Prophylaxis Initiative (iPrEx) trial to assess efficacy, effectiveness, and adherence for pre-exposure prophylaxis (PrEP) in transgender women. This randomized, controlled, multi-country trial (2007–2011) compared PrEP with oral emtricitabine plus tenofovir disoproxil fumarate with placebo in men who have sex with men (MSM) and transgender women. Among 2,499 enrolled participants across all 11 sites, 296 (12%) participants identified as transgender and 29 (1%) identified as women, while 14 (1%) identified as men but reported using some kind of female hormone, for a total of 339 (14%) aggregated into the transgender women group. Protective drug concentrations (indicating use of four or more pills per week) were detected for 34 per 191 person-years (18%) among transgender women, compared with 463 per 1,269 person-years (36%) for MSM. There were no HIV infections among transgender women who had drug concentrations commensurate with use of four or more tablets per week. The authors concluded that PrEP seems to be effective in preventing HIV acquisition in transgender women when taken, but there seem to be barriers to adherence, particularly among those at the greatest risk. They recommended that studies of PreEP use among transgender women be specific to this population, and not adapted from or included in studies of MSM.

View Abstract

Participants' Explanations for Non-adherence in the FEM-PrEP Clinical Trial

Corneli, A., Perry, B., McKenna, K., et al. *Journal of Acquired Immune Deficiency Syndromes* (November 2015), e-publication ahead of print.

This study focused on reasons for nonadherence in the Pre-exposure Prophylaxis Trial for HIV Prevention among African Women (FEM-PrEP) trial, which was discontinued because of low adherence to the study pill, oral emtricitabine/tenofovir disoproxil fumarate. The authors conducted 88 qualitative, semi-structured interviews and 224 quantitative, audio computer-assisted self-interviews with former FEM-PrEP participants in Bondo, Kenya and Pretoria, South Africa. While women often cited several reasons for low adherence, their explanations mainly fell within these categories:

- *Individual (e.g., social support and beliefs about the disease):* 15 percent of participants reported that their non-adherence was influenced by being told by others—a family member, community member, or partner—not to take the study pill, and 22 percent were deterred by other participants' non-adherence.
- *Trial characteristics* and the *study pill regimen*: many women explained that they or other participants believed that the regimen was ineffective, or were unsure about its effectiveness. Some women reported anxieties about the unknown risks of the investigational drug.
- *The disease:* participants were concerned that people would associate their participation in the trial as being HIV-positive.

The authors concluded that discouragement from others and concerns about the study pill appeared to have influenced non-adherence. They recommended alternative study designs or procedures, and enhanced community engagement for future studies.

View Abstract

A Reevaluation of the Voluntary Medical Male Circumcision Scale-Up Plan in Zimbabwe

Awad, S.F., Sgaier, S.K., Ncube, G., et al. *PLOS ONE* (November 2015), 10(11): e0140818, doi: 10.1371/journal.pone.0140818.

The authors used a recently developed analytical approach, applying an age-structured mathematical model and its accompanying three-level conceptual framework, to assess the impact of voluntary medical male circumcision (VMMC) scale-up to date in Zimbabwe, and to evaluate the impact of prioritizing sub-populations to enhance the program's efficiency. The model showed that by 2017, prioritizing males in the 15–19 and/or 20–24 age groups would lead to the largest reductions in HIV incidence rate (about 19%). By 2025, the largest reductions in incidence rate (about 27%) were observed when males aged 10–14, 15–19, and/or 20–24 were targeted. By 2045, targeting these groups would achieve as much as a 30 percent reduction. The analysis also showed that when men were targeted by geographic location, the highest effectiveness was achieved by targeting Matabeleland South, Matabeleland North, and Bulawayo—the provinces with the highest HIV prevalence in Zimbabwe. The authors concluded that these findings demonstrated the optimal public health and economic benefits of making sub-populations the focus of VMMC services and demand creation, and that these results can inform national policy and programming in Zimbabwe.

View Abstract

A Comparison of Sexual Risk Behaviours and HIV Seroprevalence among Circumcised and Uncircumcised Men before and after Implementation of the Safe Male Circumcision Programme in Uganda

Kibira, S.P.S., Sandøy, I.F., Daniel, M., et al. *BMC Public Health* (January 2016), 16:7, doi:10.1186/s12889-015-2668-3.

This study examined differences in associations between sexual risk behaviors and circumcision status, and between HIV serostatus and circumcision status, before and after implementation of the Safe Male Circumcision (SMC) program in Uganda. The authors used data on 14,875 men drawn from two national surveys: the Uganda HIV/AIDS Sero-Behavioural Survey (UAIS) 2004, conducted before the implementation of the SMC program, and the UAIS 2011, conducted after the SMC program implementation was underway. A total of 1,792 and 2,228 men reported being circumcised in 2004 and 2011, respectively. Condom use with a non-marital partner was similar among circumcised and uncircumcised men in 2004. However, in 2011, circumcised men were less likely than uncircumcised men to report condom use with a non-marital partner. Circumcised men were 43 percent less likely to test HIV-positive in 2004, and 34 percent less likely in the 2011 UAIS compared to uncircumcised men. However, circumcised men also reported higher prevalence of multiple sexual partners than uncircumcised men in both 2004 and 2011. The authors concluded that considering the high levels of sexual risk behaviors reported in this study among men who are already circumcised, the Ministry of Health and partners need to continue educating men to avoid sexual risk-taking after circumcision.

View Abstract

Structural Prevention

Sankofa Pediatric HIV Disclosure Intervention Cyber Data Management: Building Capacity in a Resource-limited Setting and Ensuring Data Quality

Catlin, A.C., Fernando, S., Gamage, R., et al. *AIDS Care* (November 2015), 27(1):99-107, doi: 10.1080/09540121.2015.1023246.

The authors of this article described the Sankofa project database system testing in Ghana, the first system in sub-Saharan Africa to use an electronic data capture tool for recording and managing clinical research data. The Sankofa Project database system is built on the open-source HUBzero software platform, which offers in-country research personnel interactive access to training in good clinical practices, guidelines and tools for data acquisition, and built-in analytics for the data acquired. It also offers fully supported user-friendly, secure, and systematic collection of all data envisioned for carrying out the Pediatric HIV Disclosure Intervention Study. The database was designed and developed from October 2012 to January 2013, and opened for participant screening and enrollment in February 2013. The authors screened more than 400 clients, enrolled nearly 300 clients, and collected tens of thousands of data elements to describe demographic, medical, and psychosocial events during the course of the study period. The database successfully supported all of the data exploration and analysis needs of the Sankofa Project. Moreover, the ability of the database to query and view data summaries proved to be an incentive for collecting complete and accurate data. The authors concluded that the Sankofa data management tool was cost-effective and could be deployed for clinical trials and translational research activities in other resource-limited settings.

View Abstract

Are Couple-based Interventions More Effective than Interventions Delivered to Individuals in Promoting HIV Protective Behaviors? A Meta-analysis

Crepaz, N., Tungol-Ashmon, M.V., Vosburgh, H.W., et al. *AIDS Care* (November 2015), 27(11):1361-1366, doi: 10.1080/09540121.2015.1112353.

This systematic review and meta-analysis examined studies that compared the effects of couple-based versus individual-level interventions, and estimated the strength of couple-based intervention effects on HIV protective behaviors. A total of 15 couple-based interventions conducted between January 1988 and December 2014, with a total of 21,882 participants, met the inclusion criteria. The authors found that the results of random-effects models showed statistically significant intervention effects for protected sex, HIV testing, and nevirapine uptake. They concluded that couple-based interventions were more effective in promoting these protective behaviors when directly compared to interventions delivered to individuals. They added that couples HIV counseling and testing allowed both members of a couple to learn their HIV status and make informed choices about antiretroviral prophylaxis during pregnancy (for heterosexual couples) and antiretroviral therapy.

View Abstract

Facilitators and Barriers to HIV Screening: A Qualitative Meta-synthesis

Leblanc, N.M., Flores, D.D., and Barroso, J. *Qualitative Health Research* (February 2016), 26(3):294-306, doi: 10.1177/1049732315616624.

The authors of this study examined barriers to and motivators for HIV screening and receipt of test results by assessing 128 qualitative studies published from 2008 to 2013. They found that several salient factors influenced individuals to seek screening and receive their results: an individual's general perception of health and disease; individual experiences; and broader contextual dynamics. Among individual attributes, fear was the most prevailing barrier to screening and testing. Dissolution of an intimate relationship or abandonment by family and friends, and lack of awareness about HIV screening, diagnosis, and treatment also discouraged individuals from seeking testing and results. At the interpersonal level, the attributes of both clinical providers and lay health workers were the sole motivator for obtaining HIV screening services. Broader contextual influences centered on the physical location of clinical services: whether service settings were freestanding, within a larger facility, or provided as part of other health services; and their proximity to home or the workplace. The authors concluded that these findings could clarify aspects to consider in the effort to increase HIV screening uptake and clients' knowledge of test results.

View Abstract

Risk of Sexual, Physical and Verbal Assaults on Men Who Have Sex with Men and Female Sex Workers in Coastal Kenya

Micheni, M., Rogers, S., Wahome, E., et al. *AIDS* (December 2015), 29(3):S231-S236, doi:10.1097/QAD.0000000000000912.

This study compared the incidence of sexual, physical, and verbal assault among men who have sex with men (MSM) to that among female sex workers (FSWs) in coastal Kenya between 2005 and 2014. The study enrolled 1,425 adults aged 18–49 years who demonstrated high-risk sexual behavior in the past three months. All participants were followed up at monthly or quarterly clinic visits that included behavioral risk assessment, a standardized physical and genital examination, and HIV testing. The authors found that the individual risk of rape among MSM was similar to that experienced by FSWs. However, FSW had higher incidence of reported physical and verbal assault than MSM (21.1 versus 12.9 per 100 person-years). Among MSM, alcohol use was associated with reporting of all forms of assault by MSM. Perpetrators of sexual and verbal assault against MSM were usually unknown, whilst perpetrators of physical violence toward FSWs were usually regular sexual partners. The authors concluded that to complement existing services, programs should develop interventions to prevent violence toward key populations and deliver accessible care for survivors. They also recommended further research to clarify the direct and indirect consequences of violence on HIV incidence and other health risks, including impairment of psychological and social wellbeing.

View Abstract

Epidemiology

Estimating HIV Prevalence in Zimbabwe Using Population-based Survey Data

Chinomona, A., Mwambi, H.G. *PLOS ONE* (December 2015), 10(12):e0140896, doi:10.1371/journal.pone.0140896.

This study described how HIV prevalence varies with demographic, socioeconomic, sociocultural, and behavioral risk factors. Using data from the 2010–11 Zimbabwe Demographic and Health Surveys, the authors constructed graphical presentations of HIV prevalence for categories like marital status, five-year age-group, and recent sexual activity, and assessed these groups across Zimbabwe's administrative provinces. They found significant differences in the HIV prevalence rates among those who were single, married, divorced, and widowed. The highest HIV prevalence by marital status was among the widowed, and the lowest was among the single/never married individuals. Within five-year age categories, the highest prevalence was among the 35–39-year group, and the lowest was among the 15–19-year group. HIV prevalence was significantly higher among urban compared to rural residents. In terms of recent sexual activity, those who had never had sex had a significantly lower HIV prevalence than those in other categories; those who had not been sexually active during the previous month had the highest prevalence rate. Religion and wealth index were not significantly associated with HIV. The authors concluded that their study, which provided estimates of HIV prevalence at the national level and on major risk factors, could be used as a baseline for future estimates of HIV prevalence using population-based data.

View Abstract

Comparison of Sexual Risk, HIV/STI Prevalence and Intervention Exposure among Men Who Have Sex with Men and Women (MSMW) and Men Who Have Sex with Men Only (MSMO) in India: Implications for HIV Prevention

Ramakrishnan , L., Ramanathan, S., Chakrapani, V., et al. *AIDS and Behavior* (December 2015), 19(12): 2255–2269.

This study used data from a cross-sectional bio-behavioral study among men who have sex with men (MSM) in India to compare HIV-related sexual risk behaviors among MSMW and MSMO. Among the total sample of 3,739 MSM, about one-third (n=1,343) were classified as MSMW, and the rest (n=2396) as MSMO. A lower proportion of MSMW than MSMO perceived themselves at risk for HIV (21% versus 27%), and had ever been tested for HIV or collected test results (75% versus 81%). MSMW reported concurrent relationships in the past month with male casual partners (77%), male regular partners (55%), and paying partners (47%). Most MSMW (93%) had a current female regular partner, and 14.6 percent reported having sex with a female sex worker in the past month. MSMO reported a higher proportion of male regular partners (74%) and male paying partners (73%), with fewer male paid or casual partners. MSMW were less likely than MSMO to use condoms inconsistently. The authors concluded that HIV interventions among MSM should acknowledge bisexual behavior among even self-identified MSM; counsel these clients on the risks of unprotected anal and vaginal sex; and support consistent condom use with partners of either gender.

View Abstract

Applying Public Health Principles to the HIV Epidemic—How Are We Doing?

Frieden, T.R., Foti, K.E., and Mermin, J. *New England Journal of Medicine* (December 2015), 373:2281-2287, doi: 10.1056/NEJMms1513641.

The authors of this editorial stated that over the past decade, U.S. health departments, community organizations, and health care providers have expanded HIV screening and targeted testing. As a result, a greater proportion of HIV-positive people are now aware of their infection, new diagnoses of HIV infection have decreased, and HIV-positive people are living longer. However, an estimated 45,000 new HIV infections still occur each year in the United States—about 30,000 transmitted by those with diagnosed infection who are not receiving care, and about 10,000 by people with undiagnosed infection. Some communities across the country have implemented successful programs to reduce new infections. For example, a program in San Francisco achieved increased virologic suppression through increased rates of testing (including for recent and acute infection), partner notification, linkage, or re-engagement in care, and treatment of all HIV-positive people. These initiatives, plus access to pre-exposure prophylaxis (PrEP), were associated with a 40 percent decrease in reported new infections between 2006 and 2014. The authors concluded that it is possible to improve early diagnosis by implementing intensive testing, improving partner notification, and testing people in the social networks of HIV-positive individuals. Moreover, targeted PrEP among groups at highest risk can further reduce the number of new infections.

View Abstract

The Case for Strategic Health Diplomacy: A Study of PEPFAR

Bipartisan Policy Center (November 2015).

This report focused on the impact of the U.S. President's Plan for AIDS Relief (PEPFAR) on goodwill toward the United States and public wellbeing in partner countries. After controlling for regional variance, the authors compared high-prevalence PEPFAR and non-PEPFAR countries in sub-Saharan Africa. The results demonstrated that PEPFAR has contributed to a positive opinion of the United States in target countries—a finding that holds true across all 12 countries in sub-Saharan Africa that received PEPFAR funds since 2003. According to Gallup poll data on public opinion of U.S. leadership from 2007 to 2011, PEPFAR countries have had an average approval rating of 68 percent, compared with the global average of 46 percent. PEPFAR has also played a role in security, stability, and governance. According to World Bank data, since 2004, PEPFAR countries in sub-Saharan Africa reduced political instability and violent activity by 40 percent, compared to only 3 percent among non-PEPFAR countries in the region. Moreover, PEPFAR offers important lessons about successful oversight and transparency. One cited study found that a key factor of PEPFAR's success was strong accountability, which reinforced monitoring and evaluation of health systems and facilitated development overall. The authors concluded that PEPFAR has dramatically improved health around the world, with continuing benefits expected until at least 2018: a testament to PEPFAR's long-term pledge to stem the global HIV epidemic.

View Full Report (PDF, 8.64 MB)

UNAIDS 2016–2021 Strategy: On the Fast-track to End AIDS

Joint United Nations Programme on HIV/AIDS (UNAIDS) (November 2015).

In October 2015, the UNAIDS Programme Coordinating Board adopted a new strategy to end the HIV epidemic as a public health threat by 2030. The UNAIDS 2016–2021 Strategy is one of the first in the United Nations system to be aligned to the Sustainable Development Goals framework. This framework, which guides global development policy over the next 15 years, includes ending the HIV epidemic by 2030. The strategy, informed by evidence and rights-based approaches, maps out the UNAIDS Fast-Track approach to accelerate the HIV response over the next five years so as to reach critical HIV prevention and treatment targets and achieve zero discrimination. The strategy also endorses achieving 90–90–90 treatment targets, closing the testing gap, and protecting the health of the 22 million people living with HIV who are still not accessing treatment. Additionally, it urges protecting future generations from acquiring HIV by eliminating all new HIV infections among children, and by ensuring that young people can access needed services for HIV and sexual and reproductive health. The strategy emphasizes that empowering young people, particularly young women, is of utmost importance to preventing HIV. This empowerment includes ending gender-based violence and promoting healthy gender norms.

View Full Strategy (PDF, 3.5 MB)

PEPFAR Evaluation Standards of Practice: Version 2.0

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

Version 2 of the PEPFAR Evaluation Standards of Practice was released in October 2015 in response to the need for additional operational guidance and evolving requirements for planning and reporting on PEPFAR-supported evaluations. The interagency Evaluation Work Group assembled the guidance with the goal of improving the quality and relevance of PEPFAR evaluations and strengthening capacity to monitor progress and integrate lessons learned. This new publication adds several clarifications, including new sections on operational issues for planning, implementation, reporting, and review; an expanded section on roles and responsibilities; and a tools and templates section, describing tools and data elements contained in each. The appendices now include the required tools and templates for planning and reporting on PEPFAR-funded evaluations. The document consists of the following sections:

- Section I—PEPFAR Evaluation Standards of Practice: lists the standards of practice in the order they are likely to be applied when conducting an evaluation.
- Section II—Planning, Implementation, Reporting, and Review: describes the entire evaluation cycle, from planning to completion.
- Section III—Roles and Responsibilities: presents two tables that illustrate roles and responsibilities by stakeholder entity, and roles and responsibilities for individuals.
- Section IV—Tools and Templates: outlines the tools and templates that will be used to plan evaluations, write evaluation reports, and assess adherence to standards.

View Full Guidance (1 MB)

Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: What's New

World Health Organization (WHO) Policy Brief (November 2015).

The November 2015 edition of the WHO consolidated guidelines on the use of antiretrovirals (ARVs) updates the 2013 edition following an extensive review of evidence undertaken in 2015. These new recommendations support initiation of antiretroviral treatment (ART) in all adults, adolescents, and children with HIV, regardless of CD4 cell count or disease stage. For the first time, the guidance includes recommendations specifically for adolescents (10 to 19 years old), covering when to begin ART and approaches for service delivery. The 2015 guidelines include 10 new recommendations, among them:

- A differentiated care framework for addressing the diverse needs of people living with HIV
- Alternative strategies for community-based ART delivery to accommodate the growing number of people on treatment
- Principles for improving quality of care and providing people-centered care.

The updated guidelines also include recommendations on service delivery to support implementation ("the how" of providing ARVs), organized according to the continuum of HIV testing, prevention, treatment, and care. For the first time, the guidelines include "good practice statements" on interventions whose benefits substantially outweigh potential harms. The guidelines also articulate the need to expand access to HIV testing, prevention, treatment, and care in settings and populations with the highest HIV burden. Meeting this need requires concerted efforts to support long-term adherence to ARV drugs, and to eliminate stigma, discrimination, and barriers to HIV services.

View Full Guidelines