

Prevention NOW!

August 2017 - Issue 35

HPTN at IAS 2017 Recap



IAS2017

9TH IAS CONFERENCE ON HIV SCIENCE PARIS, FRANCE | 23-26 JULY 2017

The 9th <u>IAS Conference on HIV Science</u> (IAS 2017) was held 23-26 July 2017 at the Palais des Congrès in Paris, France where HPTN researchers presented 19 abstracts covering HPTN <u>068</u>, <u>069</u>, <u>071</u>, <u>073</u>, <u>074</u>, <u>075</u>, <u>076</u>, and <u>077</u>. In addition, the HPTN hosted three unique satellite sessions featuring insights on HPTN 071 (PopART), systemic PrEP, and mathematical modelling for HIV prevention research.



HPTN Oral Presentations:

HPTN 068

Audrey Pettifor presented The effect of school attendance and school drop out on incident HIV and HSV-2 among young women in rural South Africa enrolled in HPTN 068. Young women who attend more school and stay in school have a lower risk of incident HIV and HSV-2 infection. Interventions to prevent infections should continue to encourage young women to attend school more frequently and to avoid drop outs.

Kelly Kilburn presented The effect of a conditional cash transfer for HIV prevention on the experience of partner violence for young women: evidence from a randomized experiment in South Africa HPTN 068. Results indicate that a conditional cash transfer (CCT) for adolescent school girls has protective effects on intimate partner violence (IPV) in part because the intervention reduces the likelihood of sexual debut or having a sexual partner, thereby reducing the opportunity for IPV. Since these behaviors also protect against HIV acquisition, this evidence strengthens the case for CCTs for HIV prevention.

HPTN 071

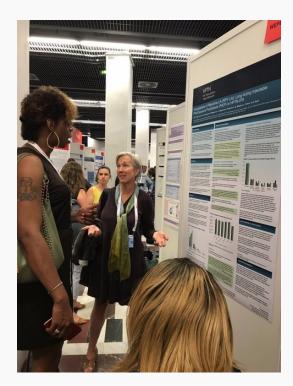
Helen Ayles presented Increasing knowledge of HIV status among men: a cluster-randomised trial of community-based distribution of oral HIV self-test kits nested in four HPTN 071 communities in Zambia. Results show that introducing HIV self-testing for three months in communities already exposed to door-

to-door HIV-testing services for three years, increased the proportion of the population who knew their HIV status. This effect was seen most markedly in men.

HPTN 077

Raphael Landovitz presented <u>Safety, tolerability and pharmacokinetics of long-acting injectable</u> <u>cabotegravir in low-risk HIV-uninfected women and men: HPTN 077</u>. Data presented shows long-acting injectable cabotegravir (CAB LA) to be well tolerated by men and women and support the dosing schedule (600mg (3 mL) injections every eight weeks with the first two injections given four weeks apart) currently being used in HPTN 083 and HPTN 084 (in development).





HPTN Poster Presentations:

HPTN 068

Danielle Giovenco presented <u>Assessing risk for HIV infection among adolescent girls in South Africa: a validation of the VOICE risk score</u>. Findings revealed that the risk score had limited variability in the HPTN 068 study population, but may still be predictive of HIV incidence.

Marie Stoner presented <u>The effect of schooling on partner age difference and number of sexual partners</u> <u>among young women in rural South Africa enrolled in HPTN 068</u>. Young women who stay in school or

attend more days of school have fewer partners and partners closer to their own age than young women who attend less school or drop out. The lack of association with grade repetition suggests that the effect of school on sexual behaviors is more strongly related with frequency of time spent in a school environment than with educational success.

HPTN 069

Shashi Kapadia presented No change in health-related quality of life for at-risk U.S. women and men starting HIV pre-exposure prophylaxis (PrEP): findings from HPTN 069/ACTG 5305. Quality of life (QOL) in at-risk individuals starting candidate HIV PrEP regimens in a clinical trial is similar to the general population and maintained over time. This finding did not vary among regimens or when adjusted for demographics, adherence, and substance use. Our findings are the first to show that starting a candidate PrEP regimen in at-risk HIV-uninfected U.S women and men was not associated with significant changes in QOL.

HPTN 071

Katharina Hauck presented Health-related quality of life of people living with HIV in Zambia and South Africa: a comparison with HIV-negative people in the baseline survey of the HPTN 071 (PopART) trial. Antiretroviral therapy (ART) is successful in restoring health related quality of life of HIV-positive individuals to that of HIV-negative individuals in this general population sample. Individuals in this study who were unaware of being HIV-positive also reported good health-related-quality of life. The direct health benefits of early diagnosis and ART in preventing losses in health-related quality of life provide support to international advocacy efforts for scale-up of testing and expansion of treatment to all HIV-positive individuals.

Richard Hayes presented <u>Sexually transmitted bedfellows: exquisite association between HIV and HSV2 in 21 communities in Southern Africa in the HPTN 071 (PopART) study</u>. These data show the exquisite association between these two infections, seen at both individual and community levels. While both viruses are sexually transmitted, the associations remained strong after adjustment for measures of sexual behavior. This association is likely due at least partly to a powerful biological cofactor effect of HSV2 on HIV acquisition. Effective control tools for HSV2 could make an important contribution to HIV prevention.

Eliud Nkuna presented Impact of household visit schedule of field teams on retention of community-recruited participants in HIV prevention research: perspectives from the HPTN 071 (PopART) study. To efficiently retain participants, males in particular, more household visits should be scheduled during Saturday shifts instead of midweek shifts. These findings can be used for implementation of community-based research.

Mwate Joseph Chaila presented <u>A primary care level algorithm increases yield of HIV-positive</u> <u>adolescents in a community intervention: HPTN 071 (PopART) Study, Zambia</u>. The screening tool identified adolescents in the general population who are at relatively high risk of being HIV-infected. This can be exploited to allow targeted offer of HCT in resource limited settings.

Blia Yang presented Feasibility, uptake and yield of household-based tuberculosis active case finding within the combination prevention package in the HPTN 071 (PopART) intervention in high TB/HIV burden communities in South Africa. Active case findings through household TB screening within a combination HIV prevention intervention is feasible. Community HIV-care Providers (CHiPs) were able to identify undiagnosed cases in the community and refer adults for treatment.

HPTN 073

Leo Wilton presented two posters for HPTN 073. The first poster, Structural barriers, mental health, and PrEP initiation/non-initiatioMan and adherence among Black MSM in 3 U.S. cities - HPTN 073 study, suggests that integrating strategies that address structural barriers and mental health needs are critical in strengthening PrEP program development and implementation efforts for Black MSM (BMSM). These efforts may facilitate access to a broader reach of BMSM to meet their unique needs related to PrEP uptake and adherence.

The other poster, <u>Mental health vulnerabilities mediate effects of socio-cultural factors on PrEP initiation/non-initiation and adherence among Black MSM in 3 U. S. cities - HPTN 073, suggests that socio-cultural factors involving ethnic and sexual identity affirmation need to be considered for in the development and implementation of PrEP biomedical prevention strategies for BMSM.</u>

HPTN 074

Scott Rose presented Regional differences in injection drug use behaviors: baseline results from the HPTN 074 vanguard HIV prevention trial. Results showed demographics and drug-use behaviors differ dramatically across the three HPTN 074 sites. These differences highlight the heterogeneity of substance-use-related HIV epidemics and suggest the need for flexible, region-specific strategies for combating HIV among people who inject drugs.

HPTN 075

Erica Hamilton presented Most HIV-positive African MSM screened for HPTN 075 are unaware of their infection. Given the UNAIDS 90-90-90 goals, findings indicate suboptimal awareness of HIV positive status among this population of MSM in sub-Saharan Africa with a high HIV prevalence. Promoting repeat and frequent HIV testing seems an effective first step in addressing the HIV treatment cascade in this population.

HPTN 076

Nirupama Sista presented HPTN 076: safety and pharmacokinetics of rilpivirine LA through week 76 in HIV-uninfected women. Results show that rilpivirine long acting, 1200 mg IM every eight weeks was well-tolerated and safe through 76 weeks in African and U.S. women. Rilpivirine plasma concentration at Week 76 was above the PA-IC90 in 92% and detectable in 99% of participants.

Elizabeth Tolley presented <u>Acceptability of Rilpivirine LA (RPV LA): Long-Acting Injectable Pre-Exposure Prophylaxis (PrEP) in HPTN 076</u>. This study provides evidence that a long-acting injectable PrEP product is highly acceptable among young women in both African and U.S. settings. It also provides insights into women's motivations for product use and trial participation, as well as product preferences and concerns that could inform future product development, trial implementation and introductory efforts.

HPTN Women at Risk SC

Millicent Atunjuna presented Cognitive Testing of an Instrument to Evaluate Acceptability and Use of PrEP Products Among Women. This rapid, low-cost cognitive interview study provided valuable insight into participants' understanding of PrEP acceptability questions, enabling us to further refine the instrument for use in the South African setting. Further validation of the instrument in other geographic settings will improve our ability to examine and compare women's preferences and needs for PrEP across multiple contexts.

Satellite Session:

Making Strides with Systemic PrEP: Pills, Injection, Infusions and Implants





Myron Cohen and Nyaradzo Mgodi

The HPTN hosted Making Strides with Systemic PrEP: Pills, Injection, Infusions and Implants to discuss the current landscape of PrEP research. There are several studies in the field that are evaluating methods to optimize the adherence to daily TDF/FTC, including HPTN 082, to inform programmatic rollout of oral TDF/FTC as PrEP. During the satellite session, Dr. Connie Celum reviewed how improved messaging, delivery, and access to daily oral PrEP can enhance its uptake. Dr. Mike Cohen provided an overview of all agents being evaluated for systemic PrEP. The safety and efficacy of new agents, including oral Maraviroc and injectable rilpivirine and cabotegravir, are being evaluated by HPTN and other investigators. The HPTN is embarking on Phase III studies to evaluate the efficacy of injectable cabotegravir for PrEP in men who have sex with men and heterosexual women. Demonstration of efficacy of injectable cabotegravir in these two Phase III studies could be a game-changer for HIV prevention. Other anti-viral drugs are being developed as implants to deliver PrEP, which, if successful, will have the advantage of administering long-acting agents every six months with the added benefit of the ability to

remove it if safety is a concern. Dr. Thomas Hope reviewed the innovative technologies such as implants for PrEP administration. At the cutting edge of HIV prevention are monoclonal antibodies. Finally, Dr. Nyaradzo Mgodi provided an overview of research being done using monoclonal antibodies. Two studies, (HVTN 703/HPTN 081 and HVTN 704/HPTN 085), evaluating infusion of the monoclonal antibody VRCO1 for prevention of HIV acquisition are underway. If successful, these two studies would have demonstrated proof of concept, making way for other monoclonal antibodies as well as combinations for HIV Prevention.

Satellite Session:

HPTN Modelling Centre Symposium: Recent Advances in Mathematical Modelling to Inform HIV Prevention Research Activities and Directions





Kate Mitchell and Dobromir Dimitrov

The HPTN Mathematical Modelling Centre, a collaboration between Imperial College London and Fred Hutchinson Cancer Research Center, hosted its first satellite session at an international conference to

discuss how mathematical models of HIV transmission and prevention are used to inform HPTN trials and research agenda. The session included talks from HPTN Modelling Centre members (Marie-Claude Boily, Dobromir Dimitrov, Kate Mitchell), and guest speakers Mathieu Maheu-Giroux, Natasha Martin, William Probert, and Peter Vickerman. The presentations covered a wide range of research questions aiming to identify the real drivers of HIV epidemics in various settings, distinguishing between the sources of acquisition and transmission, the impact of HIV interventions tested in ongoing HPTN trials such as HPTN 071 and 078, modelling studies to help design HIV trials, and the innovative use of models to assess the potential impact of structural interventions needed to improve HIV prevention among key populations. Together these results provide new research directions, valuable information on the most vulnerable population on which to focus prevention, the efforts needed to achieve the goal of HIV elimination through prevention, and how to design trials more efficiently.

Satellite Session:

HPTN 071 (PopART): Cross-Disciplinary Approaches to Understand Successes and Challenges of Implementing a Community-Wide Universal Test and Treat Programme in Sub-Saharan Africa





Katherine Hauck and Will Probert

The HPTN 071 (PopART) team hosted <u>HPTN 071 (PopART): Cross-Disciplinary Approaches to Understand Successes and Challenges of Implementing a Community-Wide Universal Test and Treat Programme in Sub-Saharan Africa.</u> Although significant advances have been made towards the 90:90:90 targets set by UNAIDS, it is crucially important to understand where the gaps lie, what the challenges are in filling those gaps, and the successful approaches that can be used to address those challenges.

Protocol Chair Richard Hayes presented on the progress of HPTN 071 towards reaching the 90:90:90 targets. After the second round of the community HIV care provider (CHiP) intervention in Zambia, HPTN 071 estimates that 87% of people living with HIV knew their status overall, close to the first 90 target. Kwame Shanaube focused specifically on what is needed to get to the second 90 in adolescent HIV. Janet Seeley's presentation focused on the time needed to link to care and start ART. James Hargreaves discussed HIV-related stigma in the context of universal testing and treatment, while Katharina Hauck discussed the cost of the community HIV care provider service. Will Probert ended the session with his presentation on modelling the potential effects of the intervention.

IAS/ANRS Lange-van Tongeren Young Investigator Prize



Kelly Kilburn received the IAS/ANRS Lange-van Tongeren Young Investigator Prize in Prevention Science at IAS 2017 for her abstract, The Effect of a Conditional Cash Transfer for HIV Prevention on the Experience of Partner Violence for Young Women: Evidence from a Randomized Experiment in South Africa HPTN 068. The Lange-van Tongeren Young Investigator Prizes are jointly funded by the IAS and the France Recherche Nord & Sud Sida-HIV Hépatites (ANRS) to support young researchers who demonstrate innovation, originality, rationale and quality in the field of HIV research. The prizes are granted to the top-scoring abstract in four tracks: Track A – Basic Science; Track B – Clinical Science; Track C –Prevention Science; and Track D – Implementation Science.

News

HPTN Mourns Passing of Prudence Mabele



HVTN 703/HPTN 081 (AMP Study) community stakeholder and South African HIV activist Prudence Nobantu Mabele passed away earlier this month. She was a leading advocate for people living with HIV, a respected gender activist, and one of the first black women in South Africa to disclose her HIV status. Prudence was the founder and executive director of the Positive Women's Network and deputy chair of the South African National AIDS Council. Our deepest condolences to her family, friends and colleagues.

Shout Outs



Congratulations to Philippa Musoke on being awarded the 2017 Research and Ethics Award by the Uganda National Council for Science and Technology (UNCST). She was recognized during the ongoing Annual National Research Ethics Conference in Kampala, Uganda for her active involvement in key studies (including HIVNET 012) focusing on prevention of motherto-child transmission of HIV/AIDS. Philippa is an associate professor at the Department of Paediatrics and Child Health at Makerere University in Uganda and principal investigator at the Makerere University-Johns Hopkins University (MU-JHU) Kampala. She recently assumed a leadership role as co-chair of the HPTN Women at Risk scientific committee.

(Courtesy: Accordia Foundation)

A delegation from UNC-Chapel Hill recently visited the campus of Kamuzu Central Hospital in Lilongwe, Malawi to celebrate the dedication of three new spaces including a library named in honor of Irving Hoffman, a professor of medicine in UNC's Division of Infectious Diseases and UNC Project-Malawi's international director. Irving has supported several HPTN studies including HPTN 035, HPTN 052, HPTN 062, and HPTN 074.



Network Member Spotlight



Sarah Fidler, MBBS, PhD, FRCP, is currently working in the Department of Medicine at Imperial College London as a clinical academic; she is a Professor and Consultant Physician in HIV Medicine. Sarah has been involved in designing and leading HIV international clinical studies for participants identified in acute HIV infection, and small proof of concept studies in HIV cure. She is co-Principal Investigator of HPTN 071 (PopART), a community-based, randomized study evaluating the impact of a combination HIV prevention package on HIV incidence. This study is the largest community-randomized trial – total estimated population 1 million – testing the impact of a combination HIV prevention package that includes a universal HIV test and treat strategy that is being conducted across 21 high HIV burden, resource-limited urban settings in the Western Cape of South Africa and Zambia.

How did you first get involved with the HPTN?

I had of course been very aware of all the amazing wealth and breadth of HIV prevention work of HPTN well in advance of becoming personally involved. I first began working with HPTN in the summer of 2011. This was when we had just been awarded the initial NIH grant to support the HPTN 071 (PopART) trial application that Richard (Hayes), myself and the team submitted in response to a specific call for a

combination HIV prevention trial. The HPTN, led then by Sten Vermund, Quarraisha Karim, along with Mike Cohen and Wafaa El Sadr spoke with us at the International AIDS Society (IAS) meeting in Rome explaining that HPTN would adopt the PopART trial as an HPTN study.

Read More

Awareness Days



National HIV/AIDS and Aging Awareness Day

September 18

Hot off the Press

Momplaisir F, Hussein M, Tobin-Fiore D, Smith L, Bennett D, Latkin C, Metzger DS. <u>Racial Inequities in HIV Prevalence and Composition of Risk Networks among People Who Inject Drugs in HPTN 037</u>. J Acquir Immune Defic Syndr. 2017 Aug 12

Greer AE, Ou SS, Wilson E, Piwowar-Manning E, Forman MS, McCauley M, Gamble T, Ruangyuttikarn C, Hosseinipour MC, Kumarasamy N, Nyirenda M, Grinsztejn B, Pilotto JH, Kosashunhanan N, Gonçalves de Melo M, Makhema J, Akelo V, Panchia R, Badal-Faesen S, Chen YQ, Cohen MS, Eshleman SH, Thio

CL, Valsamakis A. <u>A Comparison of Hepatitis B Virus Infection in HIV-infected and HIV-uninfected</u>

<u>Participants Enrolled in a Multi-National Clinical Trial: **HPTN** 052. J Acquir Immune Defic Syndr. 2017 Jul 26</u>

MacPhail C, Khoza N, Selin A, Julien A, Twine R, Wagner RG, Goméz-Olivé X, Kahn K, Wang J, Pettifor A. Cash transfers for HIV prevention: what do young women spend it on? Mixed methods findings from **HPTN** 068. BMC Public Health. 2017 Jul 11

Stoner MCD, Pettifor A, Edwards JK, Aiello AE, Halpern CT, Julien A, Selin A, Twine R, Hughes JP, Wang J, Agyei Y, Gomez-Olive FX, Wagner RG, Macphail C, Kahn K. <u>The effect of school attendance and school dropout on incident HIV and HSV-2 among young women in rural South Africa enrolled in **HPTN** 068. AIDS. 2017 Jul 7</u>

Shanaube K, Schaap A, Chaila MJ, Floyd S, Mackworth-Young C, Hoddinott G, Hayes R, Fidler S, Ayles H; **HPTN** 071 (PopART) Study Team. Community intervention improves knowledge of HIV status of adolescents in Zambia: findings from **HPTN** 071-PopART for youth study. AIDS. 2017 Jul 1

O'Leary A, Frew PM. <u>Poverty in the United States: Women's Voices</u>: Springer International Publishing; 2017.







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