

Conclusions Due to HIV+ people enjoying a longer life expectancy, and an insufficient drop in incidence, HIV prevalence will rise as a result of ART. Modelling suggests that even small increases in risky sexual behaviour will lead to further substantial increases in HIV prevalence. Policy makers are urged to continue promoting sex education, and be prepared for a higher than previously suggested number of HIV+ people in need of treatment.

P1-S6.52 IS PEP A MISUSED THERAPY? CROSS SECTIONAL PEP STUDY IN SEX WORKER OUTREACH PROGRAM CLINIC

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^{1,2}Jane Mungai, ^{1,2}Marion Kiguoya, ^{1,2}Charles Wachihi, ^{1,2}Joshua Kimani, ^{1,2}Festus Kiogora, ^{1,2}James Mwanjewe, ^{1,2}Lawrence Gelmon. ¹University of Nairobi; ²University of Manitoba STI Collaboration

Background Post-exposure prophylaxis (PEP) is a short-term antiretroviral (ARV) treatment that reduces the likelihood of HIV infection after exposure to HIV-infected blood or sexual contact with an HIV-positive person. We are able to offer PEP mediations in our SWOP clinics to clients reporting high risk exposure. Normally ARVs for PEP are given within 72 h of exposure for a period of 4 weeks. Our objective was to assess whether the clients had already established STIs prior administration of PEP. The clients were aged between 19 and 49 years with each having an average of 9 men clients per day.

Methods A cross sectional study was conducted on 91 female sex workers who came to the clinic for PEP in the period September 2009 to July 2010. The female sex workers were first given counselling, completed a standard questionnaire before having PEP administered. The samples taken included blood for HIV Elisa, high vaginal swab for Gonorrhoea Culture on Thayer martin media and Gram stain smear for Bacteria vaginosis, presence of spermatozoa and white blood cells.

Results The clients were all HIV seronegative. 76% of the women had come for PEP for the first time, 21% for the second time and 3% for the third time. 80% of the patients reported condom burst, 8.6% were as a result of rape or coerced sex, while 3.2% reported client refused condom use. However 73% smears of the women did not have spermatozoa. Overall 9% of the patients were GC positive but 3.2% had GC and spermatozoa while 6.6% had GC without spermatozoa. Trichomonas prevalence was 4.3% but all these patients did not have spermatozoa. 38% had a WBC count of over 6–30 field on gram stain Conclusion: The presence of high white cell count at the time of seeking PEP may indicate a pre-existing infection, hence presence of underlying high risk behaviour. Moreover presence of GC and TV without spermatozoa may also indicate exposure longer reported. There is need to educate sex workers on proper use of PEP and to maintain low risk behaviour. We also need to understand the decision making process of sex workers in choosing post-exposure prophylaxis and any barriers that may contribute to delays in seeking PEP.

P1-S6.53 ANTIRETROVIRAL THERAPY REDUCES HIV TRANSMISSION IN DISCORDANT COUPLES IN NORTHERN MALAWI

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¹J Glynn, ¹A Price, ¹S Floyd, ¹A Molesworth, ²N Kayuni, ²M Chihana, ²V Nyirenda, ¹A Crampin, ¹N French. ¹London School of Hygiene & Tropical Medicine, Chilumba, Malawi; ²Karonga Prevention Study, Malawi

Background Antiretroviral therapy (ART) reduces viral load and has been suggested as a prevention measure to reduce transmission. However there are concerns that this may be counterbalanced to some extent by increased sexual activity associated with improved

health and decreased condom use. The impact of ART on rates of HIV-transmission was investigated within HIV discordant couples in rural, Northern Malawi.

Methods The study was conducted as part of the Karonga Prevention Study. A demographic surveillance system was started in 2001 and annual home-based HIV sero-surveys added from 2007, with individual counselling and consent. From the first round of the sero-survey, 201 HIV discordant couples (147 male positive, female negative; 54 male negative, female positive) were identified for whom follow-up HIV data were available in the negative partner. Free ART is available at local health facilities and ART use was determined by linkage of data to a clinic based cohort and self-report. Patients attend ART clinics with a guardian who may be the spouse, and are counselled about the need for safer sex. For this analysis participant exposure to ART was defined as having started ART prior to study entry, and follow-up was censored at time of last observation, HIV seroconversion, last negative HIV test, death, departure or dissolution of marriage. Follow-up with re-testing is ongoing.

Results So far there are 249 and 99 person-years of follow-up in HIV negative women and men, respectively. 55 of the 201 positive partners had commenced ART at entry and within these couples no HIV transmission occurred over a 3-year follow-up period. Among 146 discordant couples without ART the rate of transmission to females was 5.2 / 100 person years (95% CI 2.7 to 10.5) and to males 1.3/100 person years (95% CI 0.18 to 9.4).

Conclusions In HIV discordant couples ART is associated with reduced rates of HIV transmission within partnerships.

Epidemiology poster session 6: Preventive intervention: Circumcision

P1-S6.54 MEDICAL MALE CIRCUMCISION MAY BE PROTECTIVE OF UROGENITAL MYCOPLASMA GENITALIUM INFECTION: RESULTS FROM A RANDOMISED TRIAL IN KISUMU, KENYA

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¹S Mehta, ²C Gaydos, ³I Maclean, ⁴E Odoyo-June, ³S Moses, ⁴R Murugu, ⁴L Agunda, ⁴E Nyagaya, ²N Quinn, ¹R Bailey. ¹University of Illinois, Chicago, Chicago, USA; ²The Johns Hopkins University School of Medicine, USA; ³University of Manitoba, Winnipeg, Canada; ⁴UNIM Project, Kenya

Background We determined the prevalence of *Mycoplasma genitalium* (MG) and whether this was associated with circumcision status, among men enrolled in the randomised trial of medical male circumcision (MMC) to prevent HIV acquisition in Kisumu, Kenya.

Methods MG was detected in first void urine (FVU) by APTIMA transcription mediated amplification (TMA) assay. FVU and urethral swabs were assessed for *Neisseria gonorrhoeae* (NG) and *Chlamydia trachomatis* (CT) by PCR, and for *Trichomonas vaginalis* (TV) by culture. HSV-2 detection was by IgG ELISA. Personal interview assessed socio-demographic and behavioural risks. All men underwent standardised medical history and physical examination.

Results July through September 2010, 52 (9.9%; 95% CI: 7.3 to 12.4%) MG infections were detected among 526 men. The prevalence of NG (1.4%) and TV (2.7%) did not differ by MG status. CT prevalence was 5.8% among MG-infected men, and 0.8% among MG-uninfected men (p=0.02). CT infection at enrolment was more prevalent among MG infected men (27% vs 9% uninfected, p=0.005); NG and TV at enrolment were not associated with MG. Current urethral discharge symptoms and exam findings did not vary by MG status (1.9% positive vs 1.5% negative, p=0.80), but

remote history of urethral discharge (past 6 months) was 5.8% among men with MG vs 2.1% uninfected ($p=0.10$). The prevalence of MG was 13.4% in uncircumcised men vs 8.2% in circumcised men ($p=0.06$). In multivariable logistic regression, circumcision status nearly halved the odds of MG [adjusted OR=0.54; 95% CI 0.29 to 0.99], adjusted for variables significant at the $p<0.05$ level: HSV-2 infection [aOR=2.05; 95% CI 1.05 to 4.00], CT infection at enrolment or at follow-up [aOR=2.69; 95% CI 1.44 to 5.02], washing the penis ≤ 1 h after sex [aOR=0.47; 95% CI 0.24 to 0.95]. The prevalence of MG did not differ by HIV status, age, education, marital status, number of sex partners, condom use, or sex during menses. There were no interactions with circumcision status.

Conclusions Prospective study is needed to verify the potential protective association between MMC and MG. The mechanism by which MMC may protect against MG is unclear. Randomised trials have not found MMC to protect against other urethral infections (NG, CT, TV), though circumcised and uncircumcised men may have different peri-urethral bacteria and penile microbiome. The role of MG in STI morbidity, syndromic management algorithms and antibiotic regimens for men and women in this region should be evaluated.

Social and behavioural aspects of prevention poster session 1: Adolescents

P2-S1.01 BEYOND THE ABC IN HIV/AIDS PREVENTION: A SYSTEMATIC LITERATURE REVIEW OF SEXUAL EDUCATION PROGRAMS FOR YOUNG PEOPLE

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¹J H Estrada-Montoya. ¹Universidad Nacional de Colombia, Bogotá, Colombia

Background Latin-American young people are the fastest growing group living with, or at high risk of acquiring HIV. Young people are vulnerable due to sexual behaviour; use of illicit drugs; lack of access to education and health services; cultural and social-economical factors; structural violence; marginalisation and poverty. Acceptable success for sexual education programs are decrease in adolescent pregnancy, STD and HIV infection rates. This study tried to identify those characteristics of programs that achieved one or more of mentioned success criteria and could be adapted and implemented in Latin America, taking into account its particular historical and contextual conditions.

Methods A systematic literature review of evaluations of HIV educational programs for young people published in international databases within the last 4 years was performed. Specialised educational evaluation books, primary and secondary documents and unpublished literature were also consulted.

Results The review identified 182 documents related to the evaluation of HIV educational programs. Successful programs had at least one of the following characteristics: exceeded the ABC (Abstinence, Be faithful, Condom use) methodology; were supported by national authorities; used participative instruction methods; presented comprehensive information, including general HIV education, risk reduction practices, methods of contraception and condom use, respect for sexual/gender diversity; and guaranteed that young people joined and remained into the educational programs.

Conclusions Successful HIV/AIDS educational programs should promote the acquisition of protective though processes and behaviours by focusing on the historical, contextual, psycho-social, and sexual factors that affect behaviour and health. An education committed to HIV/AIDS prevention should be accessible to young people through the schools and must support life conditions that allow them to take advantage of the different learning oppor-

tunities. Literature review suggests that youngs may acquire the knowledge, abilities, competences, values, and attitudes that make possible to overcome the conditions of vulnerability to HIV they face.

P2-S1.02 SAFE SPACES: YOUTH FRIENDLY CENTRE USED TO PROMOTE HIV EDUCATION IN NAIROBI SLUMS

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¹P Chacha Baru Musya, ²C Johnston, ¹P Mokaya, ¹L Mbenya, ¹H Nyambura, ¹V Nduku. ¹U-Tena Performing Artists-Youth Organization, Nairobi, Kenya; ²U-Tena Arts and Education Society, Vancouver, Canada

Background Kenya's National HIV/AIDS Strategic Plan deems youth, 14–24, most-at-risk. Risk is elevated in slums where poverty is prevalent and access to condoms and health education is limited. Peer health educators who come from the community and speak the same language are able to engage trust and confidence of the target population. In 2010 a unique partnership was formed, between youth, AIDS service organizations (ASO), and Goal Kenya, with the objective of increasing HIV education among youth in Nairobi. One outcome from this partnership was the creation of a youth friendly centre.

Methods Peer educators created a safe space within the slum, Lunga Lunga Youth Centre, where youth are invited to “hang-out”, engage in off street activities (computer games, theatre, music etc), and receive health education and services. Information on HIV/STI prevention is shared and youth are taught to make informed decisions related to sexual activity and are encouraged to test for HIV /STI at the adjoining clinic.

Results In the first four months of the project 2424 youths, 40% female and 60% male used the centre. 933 youth received health counselling, 98.6% male and 1.4% female. The youth friendly space allowed for a safe and open environment for youth to receive and discuss HIV/STI information as well as access testing and health services. Using non-literature based activities increased HIV/STI knowledge and prevention methods were learnt, barriers to education such as illiteracy were circumvented.

Conclusion Given the overwhelming positive response to the youth specific space more youth friendly spaces in other parts of the slum should be made available, and ASO and youth partner organizations should be supported to enhance services. There needs to be more emphasis on engaging young women in health counselling programs.

P2-S1.03 OUR ADOLESCENTS! MY SEXUALITY MATTERS (MSM) THE LESSONS WE HAVE LEARNT

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O D Obi Peter. Asso. of Positive Youth Living with HIV/AIDS in Nigeria APYIN, Abuja, Nigeria

Background As in many developing countries, as in Nigeria STI is increasing among the adolescents. While life skills can improve their behavioural practices, traditional training approaches may not be a feasible approach to be reaching the vast number of adolescents that are sexually active, who do not know both STI and HIV status. Many youth initiate sexual risk behaviours in preadolescence, yet STI, HIV prevention programmes are typically implemented in adolescence, missing an important window for prevention. Pre-risk prevention efforts are needed to equip youth with knowledge and skills to make healthy and responsible decisions about sexual behaviour against STIs.