

P3.423 ESTIMATING THE IMPACT OF ANTIRETROVIRAL THERAPY AND CONDOMS IN THE HIV EPIDEMIC OF BOGOTA, COLOMBIA

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Background The HIV epidemic in Bogota, Colombia is mainly driven by transmission among men-who-have-sex-with-men (MSM). Combined Antiretroviral Therapy (ART) introduced since 1997 is hypothesised to have helped control the overall spread of HIV. Our objective was to estimate the impact of ART on HIV incidence in the general population of Bogota.

Methods We developed a deterministic mathematical model simulating the sexual transmission of HIV among MSM, female-sex-workers, their clients and heterosexuals. Parameter values for behaviours and intervention coverage reflect local sources as much as possible. Surveillance data reflect a marked increase in condom use among FSW and MSM after the AIDS era—80% and 59% in 2010, respectively. The model was fitted to FSW and MSM HIV prevalence and AIDS-mortality estimates using a rejection-sampling based approach that was used to create inferences on the scale of changes in risk caused by interventions. Counterfactual scenarios were generated in which the inferred impact of changes in condom use and ART were removed.

Results Between 1997 and 2011, there was ~32,864 new infections and ~9,500 AIDS deaths, more than 80% of which were among MSM. The model estimates that there would have been an additional ~96,860 new infections and ~17,353 AIDS deaths if condom use has not increased over time. In the same period, ART became available, without which there may have been a further additional ~4,060 new infections and ~4,493 deaths. Future projections with levels of condom use and ART remaining constant, however, do not show further declines in HIV incidence.

Conclusions Antiretroviral-therapy and condom use may have had a major impact in curbing the HIV epidemic in Bogota. Further reductions in the future require additional prevention efforts focused on men-who-have-sex-with-men. The strength of these conclusions, however, is moderated by incomplete data on changing patterns of risk behaviour in this population.

P3.424 TESTING TOGETHER: HIV/STI TESTING AND DIAGNOSES AMONG MALE COUPLES, CHICAGO, 2011–2012

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Background Couples-based HIV/STI interventions for MSM are rare although approximately two-thirds of HIV transmission occurs in primary sexual dyads. We adapted and evaluated a couples voluntary counselling and testing intervention used with heterosexuals in Africa for MSM in the U.S.

Methods Between September 2011 and November 2012, 177 male couples (354 individuals) provided consent and were enrolled in “Testing Together” at two Chicago clinics. Demographics and clinical data were abstracted from electronic medical records and an online survey.

Results Median age was 29 and a significant percentage (44%) was aged 25–34. 60% were non-Hispanic White, 21% Hispanic, and 8% Black/African-American. 34% had been together for less than three months, and 69% were together less than a year. Twenty-three par-

ticipants (6.5%) tested HIV positive. Four individuals reported a previous positive HIV result and may have used to the service to disclose their status to their partner, yielding 19 (5.4%) newly identified infections. Five couples were concordantly positive (2.8%) and nine were discordant (5.1%). All four previously positive participants had discordantly negative partners. 64% of individuals (227) also tested for syphilis and five new syphilis infections were diagnosed (2.2%); one couple was concordantly newly infected. Only 27% of individuals (95) tested for gonorrhoea and Chlamydia at any anatomic site. Of these, 10 were diagnosed with gonorrhoea (10.5%) and 9 were diagnosed with Chlamydia (9.5%); one couple was concordantly positive for each gonorrhoea and Chlamydia.

Conclusions Diagnoses of all infections was high, suggesting that Testing Together effectively targeted high risk participants, who may not otherwise have received testing services. Receiving HIV/STI results together may substantially reduce the risk of transmission within primary sexual dyads and enhance partner service outcomes. Identifying mechanisms to increase the proportion of participants receiving STI tests warrants attention. Further research and investment in couples-based interventions is needed.

P3.425 POTENTIAL FOR INTERNET-BASED TESTING TO REACH GAY, BISEXUAL AND OTHER MEN WHO HAVE SEX WITH MEN (MSM) IN CANADA FACING CURRENT BARRIERS TO TESTING FOR HIV AND SEXUALLY TRANSMITTED INFECTIONS

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Background While pilot studies indicate MSM will use internet testing, no known studies have examined the acceptability of internet testing among diverse MSM. We investigated intention to use internet testing for HIV/STIs, perceived benefits, and drawbacks in the 2011 *Sex Now* online survey of MSM in Canada.

Methods Participants were recruited through websites (76%), organisations (10%), and word-of-mouth (9%). Intention to use was measured through a 5-point Likert scale. We used multivariable logistic regression (comparing likely or very likely vs other options combined) to identify factors associated with intent (spanning socio-demographics, sexual behaviours, healthcare access, and internet use).

Results Among 7938 Canadian participants, 72% intended to use internet testing with little variation across sub-groups. In multivariable analysis, intent to use was significantly higher ($p < 0.05$) for: younger age, less formal education, not being ‘out’ about sexuality, finding sex partners/searching for health information online, greater mobile phone use, faster uptake of new technologies generally, recent unprotected anal sex with a partner of unknown/discordant HIV status, HIV-negative status, no recent HIV/STI test, avoiding or delaying testing because of privacy concerns or difficulty with access, and dissatisfaction with healthcare services in general. Among men intending to use, most common perceived benefits were greater privacy (32%), convenience (24%), immediacy (13%), and not seeing a nurse/doctor (12%). Among men not intending, most common drawbacks were not seeing a nurse/doctor (20%), wanting to talk to a provider in person about results (17%), not wanting online results (18%), and low trust of service (15%).

Conclusions While all groups of Canadian MSM reported high intention to use internet-based testing, intent was higher for men

reporting not testing or avoiding/delaying testing. Our study highlights the potential for an internet-based testing programme for HIV and STI under development in BC to reach men facing current barriers to HIV and STI testing.

P3.426 THE NEED AND OPPORTUNITY TO PROMOTE COMBINATION PREVENTION IN HIV POSITIVE MEN WHO HAVE SEX WITH MEN ATTENDING CLINICS

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Background In 2010 recent HIV diagnoses increased in the UK despite 80% of diagnosed HIV+ MSM being on antiretroviral treatment (ART) with undetectable viral load. While undiagnosed HIV infections are thought to account for high proportion of these transmissions; a significant proportion is attributed to diagnosed HIV. We examine factors associated with unprotected anal intercourse with non-concordant partners (ncUAI) among HIV+ MSM and potential for HIV prevention.

Methods HIV+ MSM attending a central London HIV clinic completed a computer-assisted survey (May-September 2010). Multivariate logistic regression analyses were conducted.

Results Median age of 429 men was 43 years. 81% of them were on ART. 17% of men had missed ≥ 1 ART doses in the last two weeks. One in five men believed that being on ART with an undetectable viral load eliminates risk of HIV transmission. 380 men had been sexually active in the last year; 20% of whom had not tested for STI. 25% of those tested had been diagnosed with ≥ 1 STI. 50% of men had a non-concordant primary partner. 50% of men's most recent sex partner was a non-primary non-concordant partner. The prevalence of ncUAI with primary and the most recent non-primary partner was 18% and 16.9 respectively. Duration of partnership, recreational drug use during sex, belief that undetectable viral load eliminates the risk of HIV transmission were all independently associated with ncUAI with a primary partner. Disclosure of HIV status and recreational drug use during sex were independently associated with ncUAI with the most recent non-primary partner. Viral load status was not associated with ncUAI.

Conclusions HIV+ MSM attending HIV clinic reported high transmission risk behaviours. Engaging them in combination prevention interventions addressing recreational drug use, adherence to ART, attitudes towards ART for HIV prevention and STI testing during clinic visits provides vital opportunity for HIV/STI prevention.

P3.427 EXPLORING THE BELIEFS, ATTITUDES, AND BEHAVIOURS OF MSM ENGAGED IN SUBSTANCE USE AND TRANSACTIONAL SEX IN GHANA

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Background This qualitative study was designed to examine vulnerability to HIV infection and health-related needs among young men who have sex with men (MSM) in Kumasi, Ghana. Study objectives were to explore substance use (SU) and transactional sex (TS), overlap between SU and TS, beliefs related to SU and TS, and HIV knowledge and risk behaviours in this population.

Methods Adolescents (aged 15–17 years) and young adults (aged 18–29 years) who self-reported male-to-male sex in the previous 12

months and who either used alcohol or illicit substances or engaged in TS were recruited using snowball sampling. Data were collected through 44 in-depth interviews and eight focus group discussions, and analysed using QSR NVivo 10.0 software.

Results A total of 99 MSM participated. Most reported engaging in alcohol use and TS; a minority used substances, mainly marijuana. The majority displayed knowledge of HIV transmission and prevention, though few understood the basics of HIV treatment. Most perceived they were at high risk of HIV infection due to inconsistent condom use. Their risky behaviours also encompassed group sex, multiple sexual partners, and SU. Most expressed specific health needs, including education, screening, and treatment for sexually transmitted infections. They reported having only one clinic that provides services specific to MSM, and requested shorter wait times at facilities. Barriers to health and HIV services access included stigmatisation, ill-treatment by providers, poor quality of services, fear of testing positive, and lack of privacy, health insurance, and not knowing where to access services. Participants suggested legalising male-to-male sex, educating the public about MSM, and providing MSM with jobs to alleviate their challenges.

Conclusion Young MSM in Kumasi engage in high-risk behaviours and indicate a need for interventions to improve access to health and HIV-related services, increase HIV treatment knowledge, and reduce stigma among health providers and society.

P3.428 FAMILIAL AND SOCIAL FACTORS INFLUENCING HIV/AIDS INTERVENTIONS IN RAWALPINDI, PAKISTAN

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Background There are significant numbers of MSM in different parts of Islamic Republic of Pakistan including Rawalpindi. Religion and social norms do not promote/encourage acceptance of MSM at individual, familial and community level. MSMs generally face severe torture, neglect and deprivations associated to sexual identity. This study aims to provide insight to socio-familial factors that can affect HIV/AIDS related interventions by NMHA which is implementing GFATM's Regional Grant R-9.

Methodology Using snow-ball sampling technique and consent based inclusion the thirty participants were interviewed to get their case-study and FGD was conducted by 03 researchers included 02 self-identified MSMs from Rawalpindi and a clinical psychologist. NMHA's research-ethical standards were met with.

Results Almost every participant reported physical abuse by family members and deprivation from family property associated to disclosure of sexual identity. Undue psychological stresses caused due to family pressures to live in "rightly manner" and to "get married" which can lead to leaving home and living in sub-standard conditions resulting in health hazards. Educational and vocational activities are usually discontinued and most of the boys start living with friends with same sexual identity and engage in sex-work. Condom/lubricant knowledge and practise in very low. Harassment and abuse and exploitation (physical/psychological/financial) by police and "network operators" is common. Condom use with wives is for contraception. Fear of being rejected/and from home is a barriers to disclosure to wives.

Conclusion Inclusion of family and PPTCT interventions along with socio-economic empowerment activities can be supportive in developing a rights based HIV prevention programme for MSMs in Rawalpindi. Further studies and a community lead programme and outreach strategy is highly recommended to support empowerment and building self-esteem.