sexual behaviour. Our objective was to assess whether contextual exposure to social disorder is correlated with self-reported sexual intercourse among adolescent girls.

Design and Methods Girls (N=48), aged 14–16, were recruited from a single geographic urban area and monitored for 1 week using a GPS-enabled cell phone. Adolescents completed an ACASI survey on self-reported sexual intercourse in the last 30 days. In addition to recorded home and school address, phones transmitted location data every 5 min (travel points). Using ArcGIS, we defined social disorder as aggregated point-level Unified Crime Report data within a 200 metre Euclidian buffer from home and each travel point. Using Stata, we analysed how social disorder exposures differed among girls who reported having sex or not.

Results Girls reporting sexual activity spent less time at home (30.9% vs 55.7%, p<0.001) and more time at least 5 km away from home (29.5% vs 12.4%, p=0.01). Girls who reported sex in the last 30 days lived in areas of higher social disorder than girls not reporting sex (p=0.01). There were no significant differences in exposure to social disorder based on travel data among girls reporting sex or not, however. Exposure to social disorder varied by school/non-school day as well as time of day. [Abstract O1-S11.05 figure 1].

Conclusions Even within neighbourhoods, social disorder surrounding the home as defined by crime within a 1-block radius correlates with adolescent sexual intercourse behaviour. Although adolescents reporting having sex are less likely to spend time at home and more likely to be further from home than girls not reporting sex, the areas where they travel to are not different in terms of social disorder.

O1-S11.06 BURDEN OF GENITAL DISCHARGE PATHOGENS AND ASSOCIATED CHARACTERISTICS OF ASYMPTOMATIC HIV-INFECTED PATIENTS IN JOHANNESBURG, SOUTH AFRICA

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Background The prevalence of asymptomatic STIs and urethritis/cervicitis pathogen-associated patient characteristics were determined among patients attending a HIV treatment centre in Johannesburg.

Methods Consenting consecutive HIV-infected patients, asymptomatic for symptoms/signs of genital discharge, were screened over 12 months for gonorrhoea, trichomoniasis, chlamydial and *Mycoplasma genitalium* infections using a real-time PCR assay. Bacterial vaginosis (BV) and Candida were detected by microscopy (women only). Serological assays diagnosed syphilis (RPR/TPPA) and herpes simplex type 2 (IgG ELISA) infections. Patients returned at 2 weeks; those with positive results were treated and given contact slips for partners. If available, patients' most recent CD4 (83%) and viral load (VL) (60%) results were recorded. Demographic, clinical and behavioural data were collected by nurse-administered questionnaire. A descriptive analysis was conducted to obtain frequency distributions of patient and STI prevalence data. Associations were investigated using the χ^2 test at a 5% level of significance. A multiple logistic regression model was fitted to find factors associated with urethritis/cervicitis pathogens.

Results 1109 patients were enrolled (551 men, 558 women). Compared with men, women were younger with a mean age [SD] of 35.0 [7.3] vs 37.9 [7.9] years (p<0.001), reported more STIs in the past year (65.5% vs 56.5%, p=0.002), were less likely to know their partner's HIV status (53.1% vs 62.3%, p=0.007), were more likely to be on HAART (70.4% vs 59.7%, p<0.001) with an undetectable VL (81.0% vs 69.9%, p<0.001) and a higher mean [SD] CD4 count of 346 [203] vs 232 [173] cells/mm3 (p<0.001). Urethritis/cervicitis pathogens were detected in 119/558 (21.3%) women and 90/550 (16.4%) men (p=0.035). BV and Candida were detected in 155 (28.0%) and 101 (18.3%) women, respectively. Detection of urethritis/cervicitis pathogens was associated with recent sexual intercourse with a regular partner (adjusted OR, aOR 1.64, 95% CI 1.08% to 2.48%). Trichomoniasis was associated with female gender (aOR 2.45, 95% CI 1.39% to 4.32%) and sub-optimal condom use with regular partners (aOR 2.04, 95% CI 1.23% to 3.41%).

Conclusions Urethritis/cervicitis pathogens were highly prevalent among this asymptomatic population. The benefit of introducing such STI screening programmes to improve reproductive health and HIV prevention efforts requires further study.

Social and behavioural aspects of prevention oral session 1—Changes over time: evolution of individual and population level patterns

O2-S1.01 DEVELOPMENTAL CHANGES IN MASCULINITY, SEXUAL BEHAVIOUR, AND STI RISK AMONG ADOLESCENT BOYS

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Background Successful STI prevention for younger boys should tap into a cultural understanding of boys' romantic and sexual relationships. However, little data exist. We describe developmental changes in boys' relationships, masculinity, sexual behaviour, and STI risk across adolescence.

Methods After IRB approval, thirty-three 14–16-year-old boys were recruited from a teen clinic serving high STI prevalence urban areas, and participated in 3 one-hour qualitative interviews, approximately 6–9 months apart. Urine was tested for gonorrhoea, chlamydia and trichomonas using DNA-based tests. Over 80% were retained at each follow-up. Baseline interviews were coded, then each boy's three interviews were read as a group, looking for changes across the interviews in relationship experience, masculine beliefs, sexual communication and decision-making, sexual experiences, and STI prevention.

Results Mean age was 14.9 years, all were Medicaid-eligible (low income), 90% were African American, and 16/33 were sexually experienced. We observed changes over time in relationships, masculinity, and sexual decision-making. At baseline, boys described girls as having more relationship power, with girls frequently initiating relationships and the decision to have sex. As boys gained experience, they perceived themselves as having more agency, and initiating sex more often. At baseline, we observed low levels of masculine beliefs, with many boys wanting meaningful and emotionally involved relationships, few viewing sex as a conquest, and most worrying about their own relationship and sexual competency. Three trajectories of masculinity emerge. A small number of Players" embodied a subset of masculine beliefs that included sex as a conquest, women as objects, and lack of emotional involvement. "Emotionally distant" was more common; these boys described initially trusting girls, "being burned" by someone they had been close to, and then not investing emotionally so as not to be hurt again. "Caretakers," also a small minority, emphasised men's role to protect and care for women. Sexual communication, mostly indirect or nonverbal at baseline, became more direct. Despite a baseline interest in sex within relationships, experiences of 1st sex were generally outside of relationships.

Conclusions For STI prevention programs to have relevance to younger boys, they need to tap into developmental changes in the cultural, relational, and behavioural contexts of sex.

O2-S1.02 IS CONCURRENCY THE NEW SERIAL MONOGAMY? EVIDENCE FROM A LARGE SURVEY OF PEOPLE ATTENDING CONTRASTING GENITOURINARY MEDICINE (GUM) CLINICS IN ENGLAND

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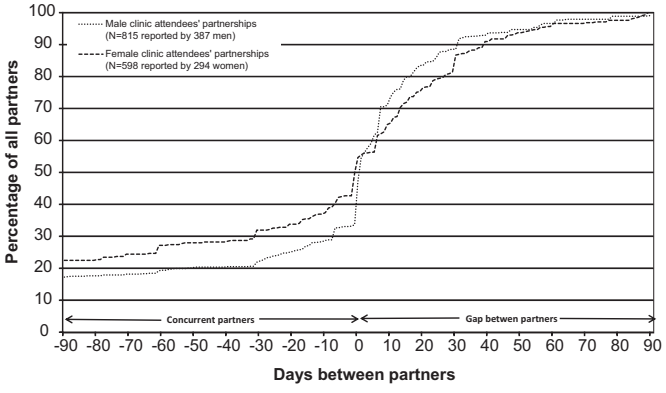
Background Concurrency is an important risk behaviour for STI transmission at the population level, yet few surveys ask detailed questions about concurrency. Even if partnerships do not overlap, there is potential for STI transmission if the gap between the end of one partnership and the start of the next is short. We examined the prevalence of concurrency, quantified the gap between partners and examined gender differences in a high-risk population.

Methods Cross-sectional survey of 2203 people attending four contrasting GUM clinics in England in 2009. Attendees completed a questionnaire including questions about their three most recent partnerships in the 3 months prior to attending GUM. Gaps between partners were calculated as the time between most recent sex with a previous partner and first sex with a more recent partner. Partnerships were considered concurrent if the gap was negative.

Results 92% of attendees reported sex partner(s) in the last 3 months, yet, while the median number of partners was 1387 men (48%) and 294 women (28%) reported 2+ partners in this time ($p<0.001$). For 49% of these attendees, ≥2 of their 3 most recent partners were concurrent ($p=0.07$ for gender difference). Among the 347 concurrent partnerships reported, the median overlap was long: 113 days (IQR: 28–460 days) with just 40 partnerships (12%) involving an overlap of <2 weeks (no significant gender difference). 40% of attendees with concurrent partners had not used condoms consistently with either partner, and a further 24% of attendees with concurrent partners reported not using condoms at all with either partner. In addition (see Abstract O2-S1.02 figure 1), while 78% of men's partners and 70% of women's were overlapping or had a brief gap (<2 weeks), just 12% and 20% respectively involved a gap between partners of >4 weeks.



Abstract O2-S1.02 Figure 1 Cumulative percentage distribution of the time between partners in the 3 months prior to attending GUM clinic reported by attendees with 2+ partners, by gender.

Conclusions The majority of GUM attendees reported few partners in the last 3 months, yet half of those with 2+ partners had concurrent partnerships, such that concurrency is as common as serial monogamy in this population. These partnerships typically overlapped by a number of weeks and condoms were seldom used, if at all. Among the serially monogamous, sex with a new partner within days of last sex with a former partner was common so the potential for STI transmission is high. Understanding concurrency and the gaps experienced by high-risk individuals is important for ensuring that health promotion and partner notification are delivered appropriately and effectively.

O2-S1.03 ABC FOR PEOPLE WITH HIV: A LONGITUDINAL QUALITATIVE STUDY OF RESPONSES TO SEXUAL BEHAVIOUR RECOMMENDATIONS AMONG PEOPLE RECEIVING ANTIRETROVIRAL THERAPY IN JINJA, UGANDA

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Background People living with HIV (PLHIV) taking ART are increasingly involved in positive prevention" initiatives. These are generally oriented to promoting Abstinence, "Being faithful" (partner reduction) and condom use.

Methods We conducted a longitudinal qualitative study with PLHIV using ART, who were provided with adherence education and counselling support by a Ugandan non-governmental organisation, The AIDS Service Organisation (TASO). Participants were 40 people selected sequentially as they started ART, stratified by sex, ART delivery mode (clinic- or home-based), and HIV progression stage (early or advanced). At enrolment and 3, 6, 18 and 30 months, semi-structured interviews and home observation visits explored adherence and life changes.

Results At initiation of ART, participants agreed to follow TASO's positive-living (similar to ABC) recommendations. Initially poor health prevented sexual activity. As health improved, participants prioritised resuming economic production and support for their children. With further improvements, sexual desire resurfaced and people in relationships cemented these via sex. Married male participants were able to use condoms with their wives, but married female participants were unable to assure consistent condom use despite serostatus disclosure to their husbands. Several participants sought and some obtained HIV positive partners (serosorting) for emotional security, support in ART adherence, sexual fulfilment, avoidance of stigma and sometimes parenthood. Respondents used condoms in the early period of new relationships, but several did not disclose HIV status to partners at first. Male partners of female respondents stopped using condoms after a variable initial period. This contributed to continued non-disclosure, since the women feared violence or loss of economic security from disclosure.

Conclusion Positive prevention interventions continue to concentrate on behavioural outcomes and education and counselling approaches. Our findings show that, as ART leads to health improvements, gender norms, economic needs, sexual desires and a wish for "normalisation" of social roles and relationships increasingly influence sexual behaviour. Positive Health, Dignity and Prevention require combinations of appropriate biological, behavioural and structural interventions tailored to the economic and cultural milieu and informed by an appreciation of the human rights of PLHIV.