2012–121, 2013–114 and 2014–109. The modelled Ct incidence for 2015 increased to 114/1000 py. The screening rate fell from a high of 85% in 2011 to a low of 71% in 2012, with subsequent improvement to 81% in 2015.

Conclusion Reported *Ct* incidence in Army women is related to the actual infection rate and the percentage of at-risk women screened. *Ct* surveillance programs must review medical report and screening data to improve burden estimates. Incidence projections help assess the magnitude of observed surveillance changes and identify the probable number of missed infections.

P3.168 EVALUATION OF THE POINT-OF-CARE XPERT® CT/NG AND OSOM® TRICHOMONAS RAPID TESTS AGAINST THE ANYPLEX™II STI-7 DETECTION ASSAY

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Introduction Syndromic management of sexually transmitted infections (STIs), as practised in most poorly resourced countries misses out asymptomatic infections. Affordable nucleic acid amplification tests (NAATs) are needed for accurate STI diagnosis and treatment.

Methods As part of a cohort study assessing a diagnostic STI care model among young South African women presenting for syndromic care, we evaluated the clinic-based point-of-care (POC) tests Xpert CT/NG and OSOM Trichomonas Rapid Test against the laboratory-based Anyplex II STI-7, a multiplex real-time PCR assay which detects *Chlamydia trachomatis* (CT), *Neisseria gonorrhoeae* (NG), *Trichomonas vaginalis* (TV), *M. genitalium* (MG), *M. hominis* (MH), *U. urealyticum* (UU) and *U. parvum* (UP) in a single reaction. All positive and discordant results were confirmed with a third molecular assay, the FTD STD9.

Results Vaginal swabs taken from 247 women were assessed in parallel. 238 of 247 (96.4%) results were in agreement comparing Xpert and Anyplex. All nine discrepant results were positive for CT on Xpert but negative on Anyplex. FTD STD9 confirmed three positive and six negative results. The sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of Xpert for CT against the two assays was 100%, 97.1%, 86.0%, 100%, respectively; and for NG 100%, 99.6%, 92.3%, 100%. The sensitivity, specificity, PPV and NPV of OSOM for TV against the two assays was 77.8%, 100%, 100%, 99.2%. In addition to the CT, NG and TV detection, the Anyplex identified a prevalence of 4.8% MG, 33.5% MH, 19.1% UU and 51.4% UP in this population.

Conclusion The overall performance of Xpert CT/NG against laboratory-based assays was comparable. A lower PPV may lead to some overtreatment, however, in a high burden STI and HIV region, where STIs are often asymptomatic, the high sensitivity and specificity are reassuring. The widened spectrum of Anyplex targets highlights the high burden of *Ureaplasma* and *Mycoplasma* species in this setting, whose clinical significance need further exploration.

P3.169 HUMAN LEUKOCYTE ANTIGEN (HLA) B*18 AND PROTECTION AGAINST MOTHER- TO-CHILD HIV TYPE1 TRANSMISSION

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Introduction Human leukocyte antigen (HLA) molecules regulate the cellular immune system and may be determinants of infant susceptibility to human immunodeficiency virus type 1 (HIV-1) infection. Molecular HLA typing for class I alleles was performed on infants followed in a Kenyan perinatal cohort.

Methods Early HIV-1 infection status was defined as infection occurring at birth or month 1, while late infection via breast milk was defined as first detection of HIV-1 after 1 month of age. Likelihood ratio tests based on a proportional hazards model adjusting for maternal CD4 T cell count and HIV-1 viral load at 32 weeks of gestation were used to test associations between infant allelic variation and incident HIV-1 infection. Among 433 infants, 76 (18%) were HIV-1 infected during 12 months of follow-up.

Results HLA B*18 was associated with a significantly lower risk of early HIV-1 transmission [relative risk (RR)=0.26; 95% confidence interval (CI) 0.04–0.82], and none of the 24 breastfeeding infants expressing HLA B*18 who were uninfected at month 1 acquired HIV-1 late via breast milk. We observed a trend toward increased early HIV-1 acquisition for infants presenting HLA A*29 (RR=2.0; 95% CI 1.0–3.8) and increased late HIV-1 acquisition via breast milk for both Cw*07 and Cw*08 (RR=4.0; 95% CI 1.0–17.8 and RR=7.2; 95% CI 1.2–37.3, respectively).

Conclusion HLA B*18 may protect breast-feeding infants against both early and late HIV-1 acquisition, a finding that could have implications for the design and monitoring of HIV-1 vaccines targeting cellular immune responses against HIV-1.

P3.170 WOMEN, HARM REDUCTION AND HIV

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Introduction This paper compares and contrasts number of partners and condom use behaviour for female sex workers and a sample of women working in other economic activities, with both samples drawn from the large informal settlement of Kibera, Nairobi.

Methods As expected, univariate analysis revealed much higher numbers of overall sexual partners and higher levels of condom use among female sex workers compared to Kibera women in other occupations. An unexpected finding, however, was that female sex workers with a romantic partner had significantly fewer sexual partners per unit time than female sex workers without such a partner.

Results This finding held for multivariate analysis, with negative binomial regression analyses showing that having a romantic partner was significantly associated with reductions

in total number of both sexual partners overall and with sexual partners who did not use condoms. In contrast, HIV status, education, number of immediate family members and levels of alcohol consumption were non-significant factors for both regression analyses.
Conclusion Results suggest that female sex workers' romantic partners act as more than sources of possible HIV infection; rather, romantic partners appear to have an important positive impact on health. We discuss this finding in light of possible harm-reduction programmes focusing on female sex workers and their romantic partners.

P3.171 MALE SPOUSE PERPETRATED PSYCHOLOGICAL AND SEXUAL ABUSE AMONG PREGNANT WOMEN IN NAIROBI, KENYA

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Introduction The purpose of this comparative retrospective study was to evaluate the nature of male spouseperpetrated gender based violence (GBV) during pregnancy. The objective was to establish whether diagnosis of HIV infection during pregnancy mitigates or exacerbates male spouse perpetrated psychological and sexual abuse during pregnancy.
Methods Case group comprising 96 HIV infected pregnant women, and comparison group (96 uninfected), all in their third trimester of pregnancy were interviewed upon consenting. A modified Conflict Tactics Scale 2 was administered to compare the two groups in terms of psychological aggression and sexual coercion.
Results Results indicated prevalence and severity of male spouse perpetrated abuse to be higher for case group than comparison group across both psychological aggression and sexual coercion subscales. The odds of male spouse perpetrated violence was 6.64-fold higher in HIV positive pregnant women compared to HIV negative pregnant women (OR=6.64, 95% CI 1.56–28.27, p=0.010). Thus, diagnosis of pregnancy and absence of HIV infection was associated with mitigated occurrence and severity of male spouse perpetrated abuse, while diagnosis of HIV infection during pregnancy exacerbated the same.
Conclusion The investigator recommends immediate sensitisation of health and social workers attending to pregnant women on the escalative effect of HIV positive diagnosis on male-spouse perpetrated violence. Intensive couple counselling and follow up care need to be specially designed and implemented for such couple whether they are concordant positive or discordant.

P3.172 BACTERIAL VAGINOSIS: RISK FACTORS AMONG KENYAN WOMEN AND THEIR MALE PARTNERS

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10.1136/sextrans-2017-053264.407

Introduction To simultaneously examine associations of bacterial vaginosis (BV) with potential risk factors in both the female and her male partner.
Methods We recruited women 18–45 years of age and their male partners from clinics in Nairobi, Kenya. All underwent face-to-face standardised interview physical examination, human immunodeficiency virus (HIV)−1 and syphilis serologic testing, endocervical cultures for Neisseria gonorrhoeae, and vaginal swabs for diagnosis of BV by Gram stain and trichomoniasis by culture.
Results Of 219 women, 97 (44%) had BV. BV was significantly associated by univariate analyses with women's own risk factors (young age, being unmarried, early sexual debut, more than 1 sexual partner, lifetime, rectal sex, trichomoniasis, HIV infection, and by principal components analysis, with low socioeconomic status [SES]) and also with male partners' characteristics (HIV infection, and by principal components analysis, low SES, and poor hygiene). In multivariate analysis including risk factors from both genders, the odds of having BV was 5.7 times higher if either partner was HIV seropositive, 13.2 times higher if the female had trichomoniasis, 2.5 times higher if the female had more than 1 sex partner ever, and decreased with increasing age of the female.
Conclusion In this population, characteristics of males and of females were independently associated with BV. Close association of male hygiene and male HIV status precluded distinguishing the influence of male hygiene on partner's BV.

P3.173 TRIPLE-ANTIRETROVIRAL PROPHYLAXIS TO PREVENT MOTHER-TO-CHILD HIV TRANSMISSION THROUGH BREASTFEEDING–THE KISUMU BREASTFEEDING STUDY, KENYA: A CLINICAL TRIAL

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Introduction Effective strategies are needed for the prevention of mother-to-child HIV transmission (PMTCT) in resource-limited settings. The Kisumu Breastfeeding Study was a single-arm open label trial conducted between July 2003 and February 2009. The overall aim was to investigate whether a maternal triple-antiretroviral regimen that was designed to maximally suppress viral load in late pregnancy and the first 6 months of lactation was a safe, well-tolerated, and effective PMTCT intervention.
Methods and findings HIV-infected pregnant women took zidovudine, lamivudine, and either nevirapine or nelfinavir from 34–36 weeks' gestation to 6 months post partum. Infants received single-dose nevirapine at birth. Using Kaplan-Meier methods we estimated HIV-transmission and death rates from delivery to 24 months. We compared HIV-transmission rates among subgroups defined by maternal risk factors, including baseline CD4 cell count and viral load. Among 487 live-born, singleton, or first-born infants, cumulative HIV-transmission rates at birth, 6 weeks, and 6, 12, and 24 mo were 2.5%, 4.2%, 5.0%, 5.7%, and 7.0%, respectively. The 24-mo HIV-transmission rates stratified by baseline maternal CD4 cell count <500 and ≥500 cells/mm^3 were 8.4% (95% confidence interval [CI] 5.8%–12.0%) and 4.1% (1.8%–8.8%), respectively (p=-0.06); the corresponding rates stratified by baseline maternal viral load <10 000 and ≥10 000 copies/ml were