Methods We included 177 HIV-positive MSM who completed a questionnaire regarding UAI and viral sorting practice. Viral sorting was defined as intentionally engaging in UAI on the condition that both the participant and the HIV-positive partner had an undetectable viral load, or the participant himself had an undetectable viral load with an HIV-negative/unknown casual partner. We examined whether men ever practiced intentional viral sorting since HIV diagnosis, and how often UAI with a last casual partner was the result of viral sorting. We distinguished two casual partner types: the casual sex partner (met by chance and had sex with") and the sex buddy ("contacted on a regular basis for sex but not considered a steady partner").
Results Of the 177 participants, 68% (120/177) ever had UAI since HIV diagnosis. Of those, 44% (53/120) ever practiced viral sorting with an HIV-positive partner and 38% (46/120) with an HIV-negative/unknown partner. Of all participants, 41% (73/177) had UAI with a last casual partner. Among men who had UAI with a last HIV-positive casual partner (n=35), proportions of viral sorting practice with a casual sex partner and a sex buddy were, respectively, 20% (3/15) and 58% (11/20), $p<0.05$. Among men who had UAI with an HIV-negative/unknown casual partner (n=38), proportions of viral sorting with a casual sex partner and a sex buddy were, respectively, 57% (16/28) and 40% (4/10), p=0.47.
Conclusions Our data suggest that viral sorting as an intentionally practiced HIV risk reduction strategy is applied relatively frequently among HIV-positive MSM with all partner types. The highest proportions were reported with HIV-positive sex buddies and HIV-negative/unknown casual sex partners. Since viral sorting is being extensively applied by MSM and most of the available data on viral load and HIV transmission risk is derived from studies on heterosexuals, future investigation should provide clear-cut indications on the effectiveness of viral sorting in lowering HIV transmission among MSM.

P2-S6.08 EXAMINING RISK IN HIGH RISK "POPULATIONS: MEASURING SEXUAL BEHAVIOUR AMONG MEN WHO HAVE SEX WITH MEN"

doi:10.1136/sextrans-2011-050108.360

[1]J G Rosenberger, [1]M Reece, [2]D S Novak, [1]D Herbenick, [3]J D Fortenberry, [1]B Van Der Pol. *[1]Indiana University, Bloomington, USA; [2]Online Buddies Inc, Cambridge, USA; [3]Indiana University School of Medicine, Indianapolis, USA*

Purpose Due to the disproportionate impact of HIV and other sexually transmitted infections (STIs) on men who have sex with men (MSM), men who indicate same gendered sexual interactions are categorised as a priority population and often perceived as high-risk". While acknowledging the potential for increased risk among certain populations is important for disease prevention and transmission efforts, this approach broadly labels men based on a limited behavioural profile without consideration for the contextual factors of a given sexual event that influence potential disease exposure. This study sought to assess sexual behaviour among MSM in the USA during their most recent sexual event and identify factors associated with decreased risk for HIV/STI.
Methods Data were collected via an internet survey from 27,690 18–80-year old MSM. Measures included sociodemographics, recent/lifetime sexual behaviour history, and sexual experience items.
Results Participants' median age was 39.0 years, ethnicities included white (84.5%), Latino (6.4%), African American (3.5%), and most (79.9%) identified as homosexual. Most participants reported a sexual event within the past month (86.1%), with the majority indicating their most recent event in the past 7 days (60.1%). While most men reported not engaging in insertive (35.2%) or receptive (37.0%) anal intercourse, of those who did, 46.1% used a condom and almost none reported ejaculation occurring in their or their partner's anus, 2.7% and 2.5% respectively. Among men (24.5%) who described their sexual partner as a boyfriend or spouse, nearly half reported they and their partner had not had other sexual partners during the past 6 months (44.7%), and the majority had been tested for STIs (61.6%) and HIV (64.8%).
Conclusions These data provide a large scale assessment of sexual behaviour during the most recent sexual event among MSM in the USA. Findings from this study highlight diversity in behaviours and demonstrate varying degrees of potential risk for HIV and other STIs, regardless of gender. Future prevention efforts should consider contextual components of sexual events, including partner type, HIV and STI testing patterns, and semen exposure, to more accurately develop custom risk reduction strategies.

P2-S6.09 FACTORS ASSOCIATED WITH HIV SEXUAL RISK MANAGEMENT AMONG HIV-NEGATIVE MEN WHO HAVE SEX WITH MEN LIVING IN QUEBEC AND WHO USE INTERNET TO FIND SEXUAL PARTNERS

doi:10.1136/sextrans-2011-050108.361

[1]M C Drouin, [2]A Léobon, [3]L R Frigault, [4]J J Lévy. *[1]Intitut national de santé publique du Québec, Montréal, Canada; [2]CNRS: Centre national de recherche sociale, France; [3]Direction de santé publique de Montréal, Canada; [4]Université du Québec à Montréal, Canada*

Background This presentation has 2 primary objectives. First, to describe sociodemographic, psychosocial, sociosexual, environnemental and health predictors of a HIV seroconversion risk behaviour, unprotected anal intercourse with HIV-positive or HIV-unknown casual partners (UAI(+/?)), among HIV-negative MSM who live in Quebec and use Internet to find sexual partners. Second, to analyse factors associated to those predictors.
Method We use data from Net Gay Baromètre 2008, a online quantitative survey which took place on Quebec' dating websites from December 2007 to May 2008. 3718 MSM participated in this survey of whom 1794 were HIV-negative. Bivariate analysis (χ^2; t test) and hierarchical regression were performed with SPSS v0.16.0 for Macintosh.
Results 14.7% of HIV-negative respondents have declared an UAI (+/?) in the past 12 months. Multivariate analysis show that homosexual identity, number of casual partners, marginal sexual practices, drug use, engagement in a couple relationship and history of a STI in the past 12 months were significant predictors associated with UAI(+/?) among those respondents. Bivariate analysis show that those predictors were more often declared among respondents who live in Montreal region, are seeking sensations, are seeking partners in sex venues and are regularly seeking partners on dating websites.
Conclusions This group of predictors and associated factors shows various sexual scenarios. Those sexual scenarios seem to be more frequent in certain spaces like Internet, which influence the management of sexual risks. Initiatives to prevent HIV seroconversion adapted to the reality of MSM who live in Quebec and use Internet to find sexual partners are proposed.

P2-S6.10 RISKS AND ATTRIBUTABLE FRACTIONS FOR HIV INFECTION AMONG MSM AT A LGBT HEALTH CENTER: CHICAGO, 2010

doi:10.1136/sextrans-2011-050108.362

[1]A Hotton, [1]B Gratzer, [2]C Estrich, [2]S D Mehta. *[1]Howard Brown Health Center, University of Illinois, Chicago School of Public Health, Chicago, USA; [2]University of Illinois Chicago, School of Public Health, Chicago, USA*

Background Continued increases in HIV among men who have sex with men (MSM) underscore the need for intervention strategies that target those at highest risk of infection.

Methods January–December 2010, we collected information on demographic and behavioural risks in the past 12 months from MSM seeking anonymous HIV testing. We examined risks for HIV infection and calculated population attributable fractions (PAFs) to identify relative contributions of exposures to overall infection.
Results Overall, 81 (2.7%) newly diagnosed infections were identified among 3045 men. Men were median age 31, 64% white, 9% black, 17% Hispanic, and 10% other race/ethnicity. 14% had been diagnosed with an STI in the past year. Among clients for whom behavioural data were available (98%), black race, STI history, receptive anal intercourse (RAI), not always using condoms for RAI, ≥3 partners for RAI, methamphetamine use, sex with an HIV positive partner, and sex with a partner of unknown serostatus were associated with an increased odds of HIV infection in univariate analysis. The univariate association between methamphetamine use and HIV infection was partially mediated by sexual risk behaviour. In multivariable logistic regression, black race (OR, 1.7; 95% CI 1.2 to 2.4), STI history (OR, 2.0; 95% CI 1.1 to 3.6), not always using condoms for RAI (OR, 2.6; 95% CI 1.5 to 4.6), and RAI with ≥3 partners (OR, 2.2; 95% CI 1.3 to 3.9) were significantly associated with HIV infection. Adjusted PAFs were 13.7% (95% CI −1.4 to −26.6) for STI history; 36.7% (95% CI 12.2 to 54.4) for not always using condoms for RAI; and 28.8% (95% CI 5.5 to 46.3) for ≥3 RAI partners. The total combined PAF for these factors adjusted for race/ethnicity was 58.8% (95% CI 28.5 to 72.0). While 81% of HIV-infected men reported at least one risk factor and 11% reported all three, overall, 51% of men screened had at least one of these factors: STI history (14%); not always using condoms for RAI (32%); and ≥3 RAI partners (27%).
Conclusions STI history, inconsistent condom use, and ≥ 3 sex partners for RAI accounted for 59% of new HIV infections, but were present in half those tested. While we identified behaviours for intervention content, we did not identify sub-groups to target. Interventions that address condom use efficacy and reducing numbers of partners for RAI, including the effect of substance use on sexual decision making, should be considered for men reporting these risks.

P2-S6.11 THE COST-EFFECTIVENESS OF SCREENING MEN WHO HAVE SEX WITH MEN FOR RECTAL CHLAMYDIAL AND GONOCOCCAL INFECTION TO PREVENT HIV INFECTION

doi:10.1136/sextrans-2011-050108.363

[1]T Gift, [2]K Bernstein, [1]H Chesson, [2]J Marcus, [2]S Pipkin, [1]C Kent. *[1]Centers for Disease Control and Prevention, Atlanta, USA; [2]San Francisco Department of Public Health, San Francisco, USA*

Background Men who have sex with men (MSM) who have a current or recent history of rectal gonococcal (GC) or chlamydial (CT) infection are at greater risk for HIV than men with no history of rectal infection. This increased risk may be due to biological or behavioural factors. Screening and treating MSM for rectal CT/GC infection may help reduce any increased biological susceptibility to HIV infection and identify men at increased risk of HIV infection.
Methods We used a Markov state-transition model to examine the potential impact of screening MSM for rectal CT/GC infection. Observational data from San Francisco were used to estimate the incidence of rectal CT/GC in MSM, including repeat infection, and the HIV incidence in MSM with and without current or recent rectal CT/GC infection. Men were categorised into four risk strata based on the number of rectal infections they had experienced. We assumed the increased risk of HIV infection was due to a combination of factors: biological (relevant only when a given person had an untreated rectal CT/GC infection) and behavioural (relevant for a period of time after a rectal CT/GC infection was treated or resolved without treatment). The quality-adjusted life year (QALY) reduction due to HIV infection, the direct costs for testing and treatment for CT/GC, and the direct lifetime medical costs per case of HIV were drawn from the literature. In sensitivity analyses we varied assumptions about the duration of rectal CT/GC infection, biological vs behavioural attribution of the increased risk of HIV infection in those with rectal CT/GC, and incidence of repeat rectal CT/GC infection. We assumed a fixed proportion of MSM (both HIV-infected and HIV-uninfected) would be screened annually. HIV prevention was the only benefit of screening that we assessed; we did not include other health and economic benefits of treating rectal CT/GC.
Results In many scenarios, screening MSM for rectal CT/GC infection was cost-saving in that the discounted cost of screening and treatment was less than the discounted cost of averted HIV infections see Abstract P2-S6.11 Table 1. The cost per QALY gained through rectal CT/GC screening ranged from < $0 to $50 000 in almost all scenarios examined, except when the elevated HIV risk in MSM with rectal infection was mostly attributed to behavioural factors rather than biological.
Conclusions Preliminary results suggest that screening MSM for rectal CT/GC infection can be a cost-effective intervention to reduce HIV infection.

Abstract P2-S6.11 Table 1

Variable	Baseline	Variable	Baseline
Annual incidence of rectal CT/GC infection, HIV-uninfected	0.058	Annual probability of transition from higher-risk group to lowest-risk group	0.29
Annual incidence of rectal CT/GC infection, HIV-infected	0.078	Duration of rectal CT/GC infection in the absence of treatment	26 weeks
Annual HIV incidence, men with 1 rectal CT/GC infection	0.018	Cost of rectal CT/GC testing*	$44.89
Annual HIV incidence, men with 2 rectal CT/GC infections	0.034	Cost of treatment*	$37.14
Annual HIV incidence, men with >2 rectal CT/GC infections	0.15	Discounted lifetime cost of HIV infection*	$379 668
Annual rectal CT/GC repeat infection rate	0.15		

*Costs are in 2010 US dollars.

P2-S6.12 SEXUAL DEBUT AND SEXUAL HEALTH: IS EARLY AGE OF FIRST ANAL INTERCOURSE ASSOCIATED WITH HEIGHTENED HIV VULNERABILITY AMONG GAY MEN?

doi:10.1136/sextrans-2011-050108.364

A Lyons, M Pitts, J Grierson, A Smith, S McNally, M Couch. *La Trobe University Melbourne, Australia*

Background To explore the long-term sexual health implications for gay men having first anal intercourse (FAI) at an early age.
Methods A nationwide online survey was conducted among 854 Australian gay men born between 1944 and 1993 (16–65 years).
Results Age at FAI dropped sharply from a median of 35 years among men born 1944–1953 to 18 years among men born 1984–1993. At their most recent sexual encounter, men who reported FAI at age 16 years or younger were more than twice as likely to have had receptive anal intercourse or reciprocal anal intercourse (both insertive and receptive in the same sexual encounter), and were almost twice as likely to report having more than 10 sexual partners in the past year. These men were also nearly twice as likely to have become HIV-positive since their sexual debut and were several times as likely to report having had a hepatitis A or C diagnosis. Additional features of the sexual health and behaviour of gay men who report early FAI will be presented that further demonstrate a need to pay close attention to age at FAI.