

especially in younger age groups. This information would allow us to better allocate resources (e.g. provide an SMS messaging platform) and tailor PN methods according to age groups, sexual preference.

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#### P04.04 CHLAMYDIA INFECTION IN MALES AND FEMALES REPORTING SEX WITH PARTNERS WITH CHLAMYDIA

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**Background** Justification for presumptive treatment for a sexually transmitted infection depends in part on the underlying prevalence of that infection among those reporting exposure. To examine these data for chlamydia we aimed to ascertain the proportion infected with chlamydia, and factors predictive of infection, amongst females, heterosexual males and men who have sex with men (MSM) presenting to a sexual health service reporting sexual contact with a chlamydia infected partner.

**Methods** Patients included were those attending the Melbourne Sexual Health Centre from October 2010 to September 2013. Proportions testing positive amongst females, heterosexual males, and MSM reporting sexual contact with a chlamydia infected partner were ascertained. Demographic and behavioural data obtained using computer assisted self-interview were analysed to determine predictive factors.

**Results** Of the 491 female, 808 heterosexual male, and 268 MSM chlamydia contacts, the proportion diagnosed with chlamydia were 39.9% (95% CI 35.7–44.3), 36.1% (95% CI 32.9–39.9), and 23.5% (95% CI 18.8–29.0) respectively. Female chlamydia contacts were more likely to have chlamydia if age  $\leq$ 24 (AOR 1.86, 95% CI 1.12–3.10) or if they reported inconsistent condom use during vaginal sex with a regular male partner (AOR 2.5, 95% CI 1.12–6.14). Heterosexual male contacts were more likely to have chlamydia if age  $\leq$ 26 (AOR 1.70, 95% CI 1.26–2.30) or if they had a regular female sexual partner (AOR 1.42, 95% CI 1.06–1.91). In MSM urethral chlamydia was diagnosed in 8.8%, rectal chlamydia in 20.2%, and in 3.9% at both sites. MSM were more likely to have chlamydia if they had a regular male sexual partner (OR 2.12 95% CI 1.18–3.81).

**Conclusion** This study of female, heterosexual male and MSM presentations with self-reported chlamydia contact provides insight as to their likelihood of infection. The data may inform policy and individual clinical decision making regarding presumptive treatment of chlamydia contacts.

**Disclosures** No potential conflicts of interest.

#### P04.05 HIGH PREVALENCE OF RECTAL GONORRHOEA AMONG MEN REPORTING CONTACT WITH MEN WITH GONORRHOEA: IMPLICATIONS FOR EPIDEMIOLOGICAL TREATMENT

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**Introduction** This study aimed to determine the prevalence of gonorrhoea and factors associated with rectal gonorrhoea among men reporting sexual contact with men with gonorrhoea.

**Methods** Men who presented to Melbourne Sexual Health Centre reporting sexual contact with a male with gonorrhoea were prospectively identified between March 2011 and December 2013. These men were screened for pharyngeal and rectal gonorrhoea using culture. The prevalence of gonorrhoea among contacts was compared to that among all men who have sex with men (MSM) screened at the clinic over the same period. Logistic regression was performed on demographic and behavioural characteristics to determine the predictors of infection among contacts.

**Results** Among 363 contacts of gonorrhoea the prevalence of rectal gonorrhoea was 26.4% (95% CI: 21.8%–31.0%) compared to 3.9% (95% CI: 3.7%–4.2%) among clinic attendees ( $p < 0.001$ ). The prevalence of pharyngeal gonorrhoea among contacts was 9.4% (95% CI: 6.4%–12.4%) compared to 2.1% (95% CI: 1.9%–2.4%) among clinic attendees ( $p < 0.001$ ). Among contacts who reported not always using condoms during receptive anal sex with casual partners, rectal gonorrhoea was cultured in 42.4% compared with 12.7% among contacts reporting no receptive anal sex ( $p < 0.001$ ) and 20.2% among those reporting always using condoms ( $p < 0.001$ ). On multivariate analysis rectal gonorrhoea was associated with inconsistent condom use during receptive anal sex with casual partners (adjusted odds ratio (AOR): 4.16; 95% CI: 1.87–9.26) and a reported past history of gonorrhoea (AOR: 1.77; 95% CI: 1.01–3.14).

**Conclusion** The high proportion of positive cases of gonorrhoea among contacts in this study supports epidemiological treatment of MSM presenting as contacts of gonorrhoea.

**Disclosure of interest** There are no conflicts of interest to be disclosed relating to this paper.

#### P04.06 PARTNER NUMBER AND OUTCOMES OF PARTNER NOTIFICATION AMONG GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN WITH INFECTIOUS SYPHILIS IN BRITISH COLUMBIA, CANADA

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**Background** Since 2010, infectious syphilis (IS) cases in British Columbia (BC) have increased 4-fold among gay, bisexual, and

other men who have sex with men (MSM). In BC, all syphilis cases and partner notification (PN) are managed centrally. We describe trends in PN outcomes from 2010–2013.

**Methods** We conducted chart reviews on a random sample ( $n = 350$ ) representing 33% (350/1054) of all IS cases among MSM in BC from 2010–2013. We described trends in number of anonymous and notifiable partners, proportions notified and tested, and test outcomes.

**Results** The 350 cases (44% primary/secondary, 56% early latent) reported 1942 partners; 1131 (58%, range 46–67%) partners were notifiable. From 2010–2013, the number of partners per case increased (average 5 to 8; 6% to 16% reported  $\geq 10$  partners). Of the 1131 notifiable partners, 936 (83%) were notified: 638 (56%) by the case, 252 (22%) by a healthcare provider (HCP), and 46 (4%) by other means (e.g., referred to another jurisdiction). From 2010–2013, the proportion of case-notified partners was stable while the proportion of HCP-notified partners decreased (43% to 19%). Of the 936 partners notified, 287 (31%) were known to be tested (21% [133/638] of case-notified and 54% [135/252] of HCP-notified partners). Of these, 62 (22%) partners tested positive and were treated. From 2010–2013, the proportion of partners known to be tested decreased, primarily due to a decrease among case-notified partners (46% to 15%).

**Conclusion** Overall 83% of notifiable partners were notified. Challenges to PN among MSM in BC include anonymous partners, the increasing number of partners to be notified, and documentation of outcomes for case-notified partners. While self-notification appears to be preferred by many MSM, partner testing may be lower in this group. Strategies to encourage partner testing (whether case or HCP-notified) are needed and may be best focused on MSM with more partners.

**Disclosure of interest statement** The BC Centre for Disease Control is a provincial public health agency which has a responsibility for surveillance of communicable diseases, including HIV and sexually transmitted infections. No external funding was received for this study. All authors have no conflicts of interest.

#### P04.07 "SUMMER LOVING": AN ANALYSIS OF SEASONAL DIFFERENCES IN SEXUAL BEHAVIOUR AND SEXUALLY TRANSMISSIBLE INFECTIONS

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**Introduction** Public health campaigns must be timed to target their audience at times of highest risk. To date no study has correlated seasonal differences in sexual behaviour with those in sexually transmissible infection (STI) positivity; and no seasonal study has been conducted in the southern hemisphere.

Our study aimed to describe seasonal differences in sexual behaviour and correlate this with STI positivity.

**Methods** This was a cross-sectional study of individuals attending the Melbourne Sexual Health Centre (MSHC) over a 9 year period from 2006–2014 inclusive. We conducted separate analyses for women, men who have sex with men (MSM) and men who have sex with women (MSW). Seasonal patterns of sexual behaviour (partner numbers, condom use and injecting drug use), and STI positivity were examined in all groups. STI with a high symptomatic rate and short incubation period were selected for the analysis: gonorrhoea, primary herpes simplex virus

(HSV) infections, non-gonococcal urethritis (NGU) (men only), and pelvic inflammatory disease (PID) (women only).

**Results** All groups reported a significantly higher number of partners in summer compared to winter (women  $P < 0.001$ ; MSW  $P < 0.001$ ; MSM  $P = 0.004$ ).

MSW reported less consistent condom use in summer ( $P = 0.016$ ); a similar but non-significant trend was observed in MSM and women.

The urethral gonorrhoea positivity among MSM was significantly higher in summer compared to winter ( $P = 0.017$ ). Similarly, the NGU positivity among MSW was the highest in summer ( $P = 0.009$ ).

In women PID diagnoses climbed over summer to peak in autumn, which then dropped to a low in winter ( $P = 0.025$ ).

The other STIs did not show statistically significant seasonal differences.

**Conclusion** Our study describes a peak in sexual partner number and STI positivity in summer. This seasonal difference must inform the timing of public health campaigns, as these are likely to be maximally effective in spring and summer.

**Disclosure of interest statement** None.

#### P04.08 SEX PARTNER MEETING VENUES AND HIV TRANSMISSION RISK FACTORS AMONG NEWLY DIAGNOSED HIV-INFECTED URBAN MSM: IMPLICATIONS FOR TARGETED CONTROL STRATEGIES

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**Background** Men who have sex with men (MSM) experience over half of US HIV infections. Control strategies, including identifying venues with ongoing transmission, are needed. Surveillance efforts traditionally focus on place, rather than internet venues and may miss other high risk populations. The objective of this study was to determine if there were significant differences in HIV-transmission related risk factors including viral load by sex partner meeting venue among newly diagnosed HIV-infected MSM.

**Methods** Public health surveillance data of newly diagnosed MSM between January 2011 and July 2014 ( $N = 280$ ) was utilised. Data included reported past-year sex partner meeting venues and transmission risk factors including viral load collected between October 2012 and July 2014.

**Results** Eighty-four percent of subjects were Black and 48% were  $\leq 24$  years-old; 39% reported meeting partners at place only venues (bar/club/park/street), 34% internet only venues (website/mobile-app), and 26% both venue types. Significant differences among the three groups of individuals included differences in reports of sex under the influence of alcohol, numbers of sex partners and chlamydia co-infection at time of HIV diagnosis; individuals reporting both venue types had higher reports in all three characteristics compared to individuals reporting place only and venue only. Individuals reporting both venue types had significantly lower geometric mean viral load (copies/