Discussion:
- In this study of self reported contacts of chlamydia over a third of heterosexual males and females and just under a quarter of MSM were found to be chlamydia infected.
- Younger age, regular sex partners, and inconsistent condom use were variably predictive of infection.
- Further understanding of chlamydia infection in sexual partners may enable a targeted empirical approach to treatment of contacts.


Acknowledgement: Jun Kit Sze and Afrizal for extracting data, and Mark Chung for poster design

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Methods:
- Patients included were those attending the Melbourne Sexual Health Centre from October 2010 to September 2013.
- Proportions testing positive for chlamydia were ascertained for females, heterosexual males and MSM who reported sexual contact with a chlamydia infected partner.
- These were compared with the proportion testing positive for chlamydia in the overall clinic population at first clinic visits over the same period.
- Demographic and behavioural data obtained using computer assisted self-interview (CAS) were analysed by logistic regression to determine predictive factors for chlamydia infection.
- Separate analyses for rectal and urethral chlamydia were undertaken for MSM.
- Where available, we examined the records of nominated sex partners of the chlamydia contacts for laboratory evidence of chlamydia infection up to three months prior to the presentation date of the contact.
- Chlamydia testing was performed using the BD Probetec strand displacement assay (Becton Dickinson, New Jersey) on the following specimens: Men: first void urine (FVU) or urethral swab, anorectal swab (in MSM) Women: FVU, high vaginal swab or cervical swab.
- Statistical analyses were performed using SPSS Statistics 21.
- The study was approved by the Alfred Hospital Research Ethics Committee (Number 300/13).

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 ≤25 (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 ≤25 (AOR 1.69, 95%CI 1.25–2.28) or if they had a regular female sexual partner (AOR 1.38, 95%CI 1.06–1.85).
- 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).
- Of the nineteen HIV positive MSM 9.5% (6/19) were diagnosed with chlamydia compared to 6.3% of the MSM without HIV (p = 0.38).
- For 45 patients, clinical records of partners who had confirmed chlamydia were available the proportion positive of chlamydia results in the contacts were 11/16 (68.8%) in females, 8/19 (42.1%) in heterosexual males, and 1/10 (10%) in MSM. In females this was significantly higher than the overall proportion diagnosed with chlamydia among contacts (68.8 vs 39.9%) p = 0.021.

Chlamydia contacts vs All clinic attendees

**Objective:**
To ascertain the proportion infected with chlamydia, and factors predictive of infection, amongst females, heterosexual males and men who have sex with men (MSM) who present to a sexual health service reporting sexual contact with a chlamydia infected partner.