

TRAVEL AS A RISK FACTOR FOR CHLAMYDIA AMONG THIRTY-TWO THOUSAND YOUNG HETEROSEXUAL INTERNATIONAL TRAVELLERS VISITING MELBOURNE, AUSTRALIA, 2007-2017.

Authors:

Aung E T¹, Chow E P F^{1,2}, Fairley CK^{1,2}, Hocking J S³, Bradshaw C S^{1,2}, Williamson D A⁴, Chen M Y^{1,2}

1. Melbourne Sexual Health Centre, Alfred Health, Melbourne, VIC, Australia
2. Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne, VIC, Australia
3. School of Population and Global Health, University of Melbourne, Melbourne, Victoria, Australia
4. Microbiological Diagnostic Unit Public Health Laboratory, Department of Microbiology and Immunology, The University of Melbourne at The Doherty Institute for Infection and Immunity, Melbourne, Australia

Introduction:

This study aimed to examine chlamydia positivity and travel as a risk factor among young heterosexual international travellers attending a sexual health clinic in Melbourne using a large retrospective dataset.

Methods:

Routinely collected sexual behavioural data and genital chlamydia results (nucleic acid amplification tests) among heterosexual males and females aged ≤ 30 attending the Melbourne Sexual Health Centre between January 2007 and February 2017 were analysed. Travellers were defined as individuals born outside Australia and present in Australia < 2 years. Australian residents were defined as individuals born in Australia or living in Australia > 5 years. Chlamydia positivity and characteristics associated with chlamydia detection were compared between travellers and Australian residents using multivariate logistic regression.

Results:

There were 32,142 travellers (14,172 men, 17,970 women) and 23,698 Australian residents (12,567 men, 11,131 women). Chlamydia positivity was significantly higher among male travellers, 12.1% (1,537/12,657, 95%CI: 11.6-12.7%), compared to Australian males, 9.3% (1020/10,913, 95%CI: 8.8-9.9%, $p < 0.001$). Similar results were shown in female travellers, 10.4% (1681/16,129, 95%CI: 10.0-10.9%) compared with Australian females 7.7% (742/9,701, 95%CI: 7.1-8.2%, $p < 0.001$). Travellers from the UK, Europe, Ireland, and New Zealand accounted for 30%, 21%, 8%, and 6% of the total number of chlamydia infections respectively. Analysis of chlamydia positivity by country of origin and gender showed that the highest rate was seen in male travellers from New Zealand (16.2%, 95%CI: 13.7-19.1%) and female travellers from China (13.8%, 95%CI: 11.4-16.5%). There was an upward trend of

chlamydia positivity among the travellers ($p_{trend} < 0.05$). Chlamydia in males and females was associated with: age < 20 ; being a traveller ($p < 0.05$); inconsistent condom use and higher number of sexual partners (> 3 partners) during the prior 12 months.

Conclusion:

This study shows international travel is an independent risk factor for chlamydia. Young international travellers arriving in Australia should be a target group for chlamydia testing and prevention.

Disclosure of Interest Statement: See example below:

There is no conflict of interest.

Word count: 300/300