

but is hindered by asymptomatic infections and analyses based on people tested for clinical reasons that could differ by age and gender. If improved serological detection of CT infection were available, epidemiological studies could more confidently estimate past exposure. We have explored CT incidence by age period in a cohort study, using a combination of a recently characterised serological assay (with higher sensitivity and high persistence) and self-reports.

Methods Sexual health and behaviour information was collected from a cohort of initially 1,037 participants born in Dunedin, New Zealand in 1972/3, at regular intervals up to age 38. Sera drawn at ages 26, 32 and 38 were tested for antibodies to CT-specific Pgp3 antigen using a double-antigen sandwich enzyme-linked immunosorbent assay. CT incidence was examined by gender, age and number of partners.

Results By age 38, 31.5% (146/464) women and 21.8% (102/469) men had been seropositive and/or self-reported CT infection. More occurred before age 26 than in the 12-year period 26–38 years, the difference being more marked in women than men. In all age periods the risk of acquiring CT increased with number of partners. Once the age-period specific incidence rates were adjusted for the number of partners there was no relationship between CT risk and age period. Overall the partner number adjusted risk was lower in men, although this may reflect that men are less likely to seroconvert than women.

Conclusions CT infection was very common amongst this cohort by age 38. Adjusted analyses showed a major risk factor was number of partners, with no interaction by age-period. The increased risk in men must be interpreted cautiously due to the known difference in serological responses between men and women.

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P08.12 INSIGHTS INTO *CHLAMYDIA TRACHOMATIS* CUMULATIVE INCIDENCE IN THE CONTEXT OF WIDESPREAD OPPORTUNISTIC *CHLAMYDIA* SCREENING IN ENGLAND: SEROPREVALENCE STUDY USING SERA FROM A NATIONALLY-REPRESENTATIVE HOUSEHOLD SURVEY

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Introduction The National Chlamydia Screening Programme (NCSP) was nationally implemented in England in 2008. The programme recommends that sexually-active under-25 year-olds are tested for chlamydia annually and on change of partner with the aim of interrupting transmission and preventing complications. We undertook a seroprevalence study to explore the impact of chlamydia screening on the cumulative incidence of infection up to 2012.

Methods Anonymised sera from participants in the Health Survey for England (HSE), a series of nationally-representative household surveys, were tested for anti-chlamydia antibodies

using an ELISA based on the *Chlamydia trachomatis*-specific antigen Pgp3. Factors associated with seropositivity among 16–44 year-olds in 2010 and 2012 (years when sexual behaviour questions were included) were investigated using logistic regression. Seroprevalence trends were investigated for 1994–2012.

Results In 2010/2012, Pgp3 seroprevalence was 24% (95% CI: 22%–27%) in women and 14% (12%–16%) in men. Seroprevalence increased with age to 34% (28%–40%) in 30–34 year-old women and 20% (15%–27%) in 35–39 year-old men, and with numbers of lifetime sexual partners (17% with 1–4 partners versus 43% in those with ≥10 in women; 6% vs. 27% in men). 78% of seropositive 16–24 year-old women did not report a previous chlamydia diagnosis. Among 16–24 year-old women, there was no significant trend in seroprevalence over time and no difference in age-specific seroprevalence between birth cohorts exposed to different levels of chlamydia screening.

Conclusion In 2010–12, at least one third of women had been exposed to chlamydia by age 30–34. Most of those with evidence of previous infection did not report a previous diagnosis, presenting consequent risks of transmission and complications. A decrease in cumulative incidence among young adults following the implementation of the NCSP has not yet been demonstrated. Additional years of screening may be needed to have a measurable effect on cumulative incidence. Continued monitoring of seroprevalence is required.

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P08.13 WHAT CAN PROBABILITY SURVEYS TELL US ABOUT CHANGES IN *CHLAMYDIA* PREVALENCE IN BRITAIN? EVIDENCE FROM THE NATIONAL SURVEYS OF SEXUAL ATTITUDES AND LIFESTYLES (NATSAL)

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Introduction The National Surveys of Sexual Attitudes and Lifestyles (Natsal) estimated the prevalence of *Chlamydia trachomatis* (chlamydia) among the sexually-experienced British population in 1999–2001 (Natsal-2) and 2010–12 (Natsal-3). Chlamydia testing among young adults increased substantially between these years, partly due to the introduction of the English National Chlamydia Screening Programme, which achieved national implementation in 2008. We explored what these data might tell us about changing chlamydia prevalence among young adults over the last decade.

Methods We compared estimated chlamydia prevalence among sexually-experienced 18–24 year old men and women between Natsal-2 (n = 680) and Natsal-3 (n = 1,511). We carried out a sensitivity analysis which accounted for differences in the accuracy of the urine collection procedure and assay used in Natsal-2 (standard universal tube for urine collection; ligase chain reaction) and Natsal-3 (FirstBurst urine collection device; AptimaCombo2).

Results There was no significant difference between the chlamydia prevalence estimates for 18 to 24 year olds in Natsal-3 vs Natsal-2: for men, 2.6% (95% CI: 1.7%–4.0%) vs 2.9% (1.3%–6.3%); OR: 0.91 (0.36–2.27); for women, 3.2% (2.2%–4.6%) vs 3.1% (1.8%–5.2%); OR 1.04 (0.53–2.01). The test-adjusted

chlamydia prevalence estimate was slightly lower than the reported prevalence in Natsal-2 among men (2.2% (95% CI, 0.4%–6.1%)) and women (2.5% (1.0%–4.9%)), due to the dominance of specificity error in a low prevalence population. However, there remained no statistically significant difference between surveys.

Conclusion Given the wide confidence intervals on prevalence estimates, the Natsal surveys are consistent with prevalence among sexually-experienced young adults in 2009–2012 being as little as half, or as much as double that in 1999–2001. Even large, national, population-based surveys face limitations in statistical power to detect moderate changes in population prevalence of chlamydia. Analyses of testing uptake, diagnoses rates and prevalence by the rich behavioural data in the Natsal surveys can contribute more to evaluation of chlamydia control.

Disclosure of interest statement Natsal-3 is collaboration between University College London (London, UK), the London School of Hygiene and Tropical Medicine (London, UK), Nat-Cen Social Research, Public Health England (formerly the Health Protection Agency) and the University of Manchester (Manchester, UK). The study was supported by grants from the Medical Research Council and the Wellcome Trust, with contributions from the Economic and Social Research Council and Department of Health.

P08.14 LYMPHOGRANULOMA VENEREUM IN THE CZECH REPUBLIC

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Introduction *Lymphogranuloma venereum* (LGV) is caused by *Chlamydia trachomatis* serovars L1 – L3. LGV was considered as tropical disease with typical inguinal syndrome and it wasn't usual in Europe until 2003, when an outbreak was observed in the Netherlands. This was followed by series of outbreaks emerging in different European countries and North America. A common feature for this epidemic is men who have sex with men (MSM) with signs of severe proctocolitis. Most of the patients are co-infected with HIV and/or other sexually transmitted infections (STI).

Methods The National Reference Laboratory for Chlamydia Infections offers a diagnostic service to clinicians. The disease is confirmed by the presence of *Chlamydia trachomatis* and L1 – L3 serovars from multiplex PCR (Seegene). Multiplex PCR is very useful, because multiple infections are observed in many cases.

Results First case of LGV was diagnosed from a lymph node puncture in 2010. Then the number of patients was slowly increasing (5–10 patients per year) and the most cases were diagnosed in 2014 (23 patients). Until March 2015, a total of 56 patients with LGV were confirmed. Characteristics of these cases were similar to those in other European countries. LGV was confirmed among MSM with high prevalence of other STI.

Forty-eight patients (85%) were co-infected with HIV. In some cases, HIV and LGV were diagnosed at approximately the same time. Forty-three patients (77%) were co-infected with syphilis. The data on other STI are not completed. The vast majority of patients manifested proctocolitis. Only in few cases the inguinal syndrome was observed.

Conclusion *Lymphogranuloma venereum* is also present among MSM in the Czech Republic. We observed, that the number of cases increases. Certainly, it is necessary to expand testing of chlamydial infection in MSM, because this disease could facilitate HIV transmission.

Disclosure of interest statement Nothing to declare.

P08.15 INCREASING NUMBER OF LYMPHOGRANULOMA VENEREUM CASES IN BELGIUM, OVERVIEW 2011–2014

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Introduction The surveillance of *Lymphogranuloma venereum* (LGV) in Belgium was reinforced in 2011 by a National Reference Centre of Sexually Transmitted Infections (NRC-STI) offering since then the confirmation of L serovar *Chlamydia trachomatis* by qPCR on biological material of suspected cases. The surveillance data of confirmed cases is send to the Institute of Public Health (IPH).

Methods Medical laboratories are asked to send biological specimens of LGV suspected cases and which are positive for *C. trachomatis* to the NRC-STI to confirm the presence of the *C. trachomatis* L type. Sociodemographic and clinical data are collected of suspected and confirmed cases.

Results The number of cases stayed stable in 2011 (N = 21) and 2012 (N = 23) but doubled (N = 45) and almost tripled (N = 59) in 2013 and 2014, respectively. Over the 4 years we observed 148 cases in 126 male patients and 1 transgender, the majority of them identified themselves as Men who have Sex with Men (MSM), being older (30–49 year) and HIV positive, with the exception of 7 HIV negative MSM in 2014. The patients were frequently co-infected with another STI. Gonorrhoea was the most frequently reported co-infection and proctitis was the predominant symptom. Sex work or contact with a sex worker was reported by four patients in 2014. Six patients experienced more than once (2–4) a LGV within 5 to 24 months since the last infection.

Conclusions Over 2011–2014, LGV was detected in mainly HIV positive MSM belonging to an older age group. STI co-infections were frequently detected.

The worrying finding is the multiple reinfections. It is not clear whether the re-infections are persistent infections due to treatment failure, re-infection caused by (an) untreated partner(s), or new infections.

The increasing number of LGV cases and the high number of re-infections calls for sensitisation and prevention campaigns for this population.

Disclosure of interest statement Nothing to declare.