Methods Analyses of positivity trends were conducted using available data for opportunistic asymptomatic tests (screens) from the NCSP national dataset for 2005 to 2010 from areas that implemented screening throughout this time period. Age, sex, ethnicity, sexual behaviour, regional and venue of screen weights for the English population of 15–24-year-olds were derived (from national sources where available) and applied to the dataset.

Results From 2005 to 2010 there was an increase in screens among men. There were no major changes in characteristics known to be associated with infection (year of age, sexual behavioural variables). Available data on sexual behavioural variables and ethnicity decreased over time. There were some changes in venue use over time. Weighting for 5-year age group, sex, <2 sexual partners in past 12 months, ethnicity and region lowered positivity in each year but slightly increased the decline in positivity from an average decline of 13% per year (from 11% in 2005 to 6% in 2010) to an average of 14% per year (from 10% to 4%). Additional standardisation by screening venue did not reduce the overall observed decline in positivity during this period. Differences in positivity between venues remained, but were slightly reduced, after weighting for differences in known characteristics of screened clients.

Conclusions The observed decline in positivity over time among screens was not accounted for by weighting for known characteristics of those screened or changes in testing venues. Together with the consistency of declining positivity in all sub-categories this suggests that a true decline in population prevalence may have occurred. Further analyses of the potential effects of data limitations and using regression techniques with additional variables (eg, deprivation) are in progress to better understand the relationship between screen positivity and population prevalence at different levels of screening uptake in England.

Epidemiology poster session 1: STI trends: *Neisseria gonorrhoeae*

PREVALENCE OF *NEISSERIA GONORRHOEAE* INFECTIONS AMONG MEN AND WOMEN ENTERING THE NATIONAL JOB TRAINING PROGRAM-USA, 2004–2009

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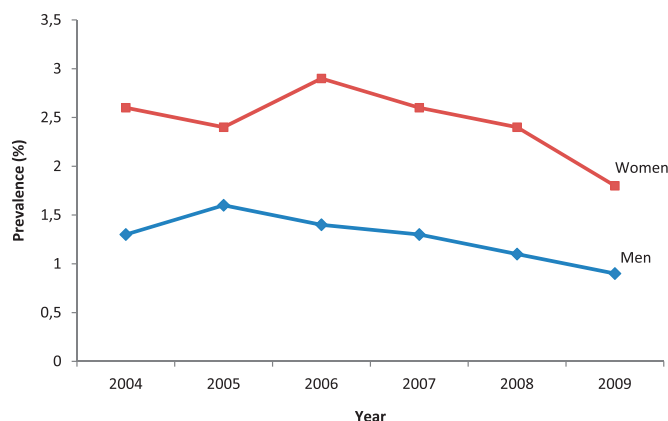
Background National notifiable disease data indicate that 99 of every 100 000 persons in the USA were infected with gonorrhoea in 2009, the lowest recorded gonorrhoea rate in US history. However, the extent to which declining case reports signify a reduction in prevalence is unknown. In order to better understand national gonorrhoea trends, we examined prevalence over time among men and women entering the National Job Training Program (NJTP).

Methods Gonorrhoea prevalence was estimated among 16–24-year-old men and women entering the NJTP in 48 states and the District of Columbia from 2004–2009. To approximate gonorrhoea screening, only data from the 105 (85% of all 123) centers that performed gonorrhoea testing on at least 50% of the population were included. Conditional logistic regression was used to assess the probability of testing positive for gonorrhoea over time, adjusted for variables associated with gonorrhoea risk.

Results 95 184 men and 91 697 women were screened for gonorrhoea upon entry to the NJTP from 2004 to 2009. For women, gonorrhoea prevalence increased from 2004 (2.6%) to 2006 (2.9%), then decreased steadily through 2009 (1.8%). For men, prevalence increased from 2004 (1.3%) to 2005 (1.6%), then decreased through 2009 (0.9%). Gonorrhoea prevalence among black women decreased from 3.6% in 2004 to 2.5% in 2009 and was 2–4 times higher than prevalence

among white women during the study period. Likewise, prevalence among black men decreased from 2.0% to 1.5% and was 8–22 times higher than prevalence among white men. After adjusting for age, race, region, and test technology, the odds of a woman testing positive for gonorrhoea decreased by 50% from 2004 to 2009. Similarly, the odds of a man testing positive for gonorrhoea decreased by 40% during the study period see Abstract P1-S1.36 Figure 1.

Conclusions Declining trends in gonorrhoea infection among NJTP entrants are similar to those observed in gonorrhoea case report data, suggesting that the decrease in case reports is due to a decrease in prevalence. Both data sources also demonstrate continuing racial disparities in gonorrhoea infection between blacks and whites. Interventions to reduce gonorrhoea infections should be developed to reach populations with a disproportionate risk.

Abstract P1-S1.36 Figure 1 Gonorrhoea prevalence among men and women screened for gonorrhoea at entry to the National Job Training Program—USA, 2004–2009.

PREVALENCE OF AND RISK BEHAVIOURS FOR *NEISSERIA GONORRHOEAE* IN PARTURIENT WOMEN AGED 15–24 IN BRAZIL

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Background *Neisseria gonorrhoeae* (NG) is a sexually transmitted infection having repercussions on reproductive health and impact on the fetus. Our goal was to estimate the prevalence of and risk factors for NG in young parturient women in Brazil.

Methods A national cross-sectional study among parturient women, aged 15–24, attending Brazilian public hospitals was performed in 2009. Participants answered a questionnaire including demographic, behavioural and clinical data. A sample of urine was collected and screened for NG and *Chlamydia trachomatis* (CT), using PCR.

Results A total of 2400 women were selected and 2071 (86.3%) participated in the study. Mean age was 20.2 years (SD 2.7). A total of 59.1% had up to 8 years of schooling and 93.3% reported an income under US$ 500. Ninety-five per cent attended antenatal care. Prevalence of NG was 1.0% (95% CI 0.6% to 1.4%) and 4% of women infected with NG also had CT infection. First sexual intercourse was reported under 15-years old by 32.8%; 5% reported previous STI; 0.8% were commercial sex workers and 6.0% used illicit drugs. NG associated factors in the final logistic model were—being single [OR=3.2 (95% CI 1.27 to 8.01)]; having more than one sexual partner in lifetime [OR=1.6(95% CI 1.13 to 2.26)]; and CT infection [OR=7.7(95% CI 2.99 to 19.91)].