for young women over 19 years of age who have aged out of the Vaccines for Children entitlement program. The objectives of this study were to assess a sample of minority women who attend neighbourhood health centers to determine predictors of vaccination, and to assess for the presence of HPV infection in these women. Those without evidence of prior HPV infection may benefit from a prophylactic vaccine.

**Methods** Between April 2009 and April 2010, we enrolled a convenience sample of 100 African American and 100 Latina women who completed a computer-assisted personal interview. Participants were queried regarding: demographics, risk for sexually transmitted infections including drug or alcohol use, HPV vaccine willingness, knowledge, attitudes and beliefs, and vaccination status. Frequencies were calculated using SAS, version 9.2. Self-collected vaginal swab samples from 118 participants were tested for HPV using line probe assay.

**Results** Participants were poor with 113 (57%) having a household income of < $20,000; and at risk for HPV infection. One hundred twenty-one (61%) did not use condom at last sex. However, only 17/118 (14%) were positive for any HPV. Predictors of vaccination could not be determined because there was not sufficient outcome response variation. A vast majority (81%) of participants had not received HPV vaccination, though a most 156 (68%) reported willingness.

**Conclusions** Three years after vaccine approval, the majority in a sample of vulnerable women had not been vaccinated despite their willingness. Public health campaigns have been successful at raising awareness and making vaccine acceptable, but may be less successful at providing the vaccine to vulnerable women. Strategies should focus on delivering vaccine to African American and Latina women in order to decrease cervical cancer disparities.
**Conclusions**

With the exception of one large network, RDS was not a particularly efficient way to screen for Ct/GC. Only one-fourth of those initially recruited by research staff in turn referred their social and sexual contacts. While social network testing has been adopted in the HIV testing realm, in the Ct/GC screening realm a focus on messages encouraging those who are tested to get their friends tested may have the greatest public health impact.

**Methods**

Women >18-years-old entering the Rhode Island Department of Corrections between September 2009 and December 2010 were recruited to participate. All women submitted a self-collected vaginal swab for trichomonas culture and Transcription Mediated Amplification testing. Each participant completed a survey addressing demographics, symptoms, sexual behaviour, and substance use by audio computer-assisted self-interview. Data analysis was completed using multivariate logistic regression in STATA.

**Results**

288 women enrolled in the study; mean age was 28 years. 59% of participants were White, 17% Hispanic, 12% Black and 12% other races. Forty-three per cent reported vaginal symptoms and 54% reported illicit drug use in the 30 days prior to incarceration. Among all participants, the prevalence of trichomonas was 8.7% by culture and 12.5% by NAAT. The strongest predictors of infection included Black race (OR 4.1, 95% CI 1.4 to 12.0), cocaine use in the 30 days prior to incarceration (OR 2.5, 95% CI 1.1 to 5.7), and >8 year since last pap smear (OR 5.2, 95% CI 1.5 to 17.8). Vaginal symptoms and age were not significantly associated with trichomonas detection.

**Conclusions**

Trichomonas infection is common in incarcerated women, especially among Blacks, recent cocaine users and those not receiving routine gynaecologic care. Infection was not predicted by symptoms or by age. Routine screening for trichomonas infection in high-risk populations may lead to increased detection and treatment.

**Symposia**

**S14.5 TREPONEMA PALLIDUM σ24 REGULON AND ENVELOPE STRESS RESPONSE**


**Background**

During syphilis infection, the envelope of *Trepnema pallidum* is constantly exposed to the host environment and, therefore, the most likely target of the host defences against the invading spirochaete. The mechanisms that maintain *T pallidum* envelope integrity and functionality, particularly in response to host-induced stresses, are however poorly understood, and their elucidation would likely help identify important pathogenesis-associated molecules, stresses, are however poorly understood, and their elucidation would likely help identify important pathogenesis-associated molecules, which might be upregulated during syphilis infection. The envelope of *T pallidum* is constantly exposed to the host environment and, therefore, the most likely target of the host defences against the invading spirochaete. The mechanisms that maintain *T pallidum* envelope integrity and functionality, particularly in response to host-induced stresses, are however poorly understood, and their elucidation would likely help identify important pathogenesis-associated molecules, which might be upregulated during syphilis infection.

**Results**

Thirty-nine DNA fragments targeted by σ24 were identified in the *T pallidum* chromosome. Seven of these target genes (lon-1, greA, fsz2, prpB, ltrA, and rpoE) were previously reported to be induced in response to envelope stress in *E coli*, suggesting that the *T pallidum* σ24 regulon is likely to be similar to that of other bacteria. Other putative target genes encode transporters, cell division proteins and a subset of motility and chemotaxis proteins.

**Conclusions**

In *T pallidum*, σ24 seems to control genes involved in a variety of cellular processes, including maintenance of envelope homeostasis and barrier function. Additional putative σ24-dependent functions, apparently not directly involved in ESR, could as well be important in helping *T pallidum* adapt to the host environment during the infection.

**S14.6 PREVALENCE AND PREDICTORS OF TRICHOMONAS INFECTION IN INCARCERATED WOMEN**

doi:10.1136/sextrans-2011-050102.61

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**Background**

Trichomonas vaginalis is the most prevalent curable sexually transmitted infection in the United States and may lead to preterm delivery, infertility and increased HIV transmission. Illicit drug use, HIV infection and Black race have been associated with high rates of infection. Incarcerated women may be at especially high risk for infection, though few studies have examined routine screening for trichomonas in this population.

**Methods**

Since 2008, the European Centre for Disease Prevention and Control is coordinating the enhanced STI surveillance in 30 EU/EEA countries. Each country was requested to nominate experts for collaboration and data submission to the European Surveillance System. Five STI are under surveillance, syphilis, gonorrhoea, chlamydia and LGV, as per Decision 2119/98/EC of the European Commission.

**Results**

Chlamydia is the most frequently reported STI in Europe, accounting for the majority of all STI reports with 343,958 cases in 2009 (185 per 100,000 population). Chlamydia was reported more in women than in men and 75% were reported in young people (15 and 24 years). Chlamydia is increasing continuously over time. In 2009, 29,202 gonorrhoea cases have been reported (9.7/100,000) and nearly a quarter of all gonorrhoea cases were reported in MSM. For syphilis, 18,317 cases have been reported (4.5 per 100,000) and half of syphilis cases were reported in MSM. The overall trend in gonorrhoea and syphilis across the EU/EEA showed a notable decreasing trend in