emergency department (ED) as a primary source of medical care. In late 2018, the University of Chicago Medical Center (UCMC) began a quality improvement project directing providers to screen ED patients for syphilis regardless of presenting complaint. The objective of this study is to evaluate the potential utility of ED screening for syphilis.

Methods A retrospective chart review was performed of all patients with positive syphilis antibody testing from October through December of 2018, and all patients with positive rapid plasma reagin (RPR) or *Treponema pallidum* particle agglutination (TP-PA) testing were included as cases.

Results In the last three months of 2018, a total of 727 patients (average of 242 patients per month) were screened for syphilis in the ED. Of these, 61 (8.4%) tested positive for syphilis, 37 (60.1%) of whom had evidence of active infection, and 24 (39.3%) were late or unknown stage. 40.9% of patients testing positive for syphilis had presented with complaints other than abdominal pain, rash, or genitourinary symptoms. Two (3%) of patients testing positive for syphilis were also newly found to be pregnant and both were referred for antibiotic treatment in the first trimester.

Conclusion Early data suggests that screening of patients for syphilis in the ED regardless of presenting complaint yields high positive rates. ED screening may represent an effective way of combating the syphilis epidemic, particularly in the most vulnerable populations. In the near future, we plan to hold a provider awareness initiative combined with an update to the electronic medical record system with automated ordering reminders to increase the numbers of patients screened.

Disclosure No significant relationships.

P741 DETECTION OF *TREPONEMA PALLIDUM* DNA AT VARIOUS BODY LOCATIONS

¹Silvia Nieuwenburg*, ²Helene Zondag, ³Sylvia Bruisten, ³Maarten Schim Van Der Loeff, ⁴Alje Van Dam, ⁵Henry De Vries. ¹Public Health Service Amsterdam, Infectious Diseases, Amsterdam, Netherlands; ²Public Health Service Amsterdam, Infectious Diseases, Public Health Laboratory, Amsterdam, Netherlands; ³Public Health Service Amsterdam, Amsterdam University Medical Center (UMC), Infectious Diseases, Infection and Immunity (AI and II), Amsterdam, Netherlands; ⁴Municipal Public Health Service Amsterdam, Public Health Laboratory, Amsterdam, Netherlands; ⁵Public Health Service Amsterdam, Amsterdam University Medical Center (UMC), National Institute of Public Health and the Environment (RIVM), Infectious Diseases, Infection and Immunity Institute (AI and II), Epidemiology and Surveillance Unit, Amsterdam, Netherlands

10.1136/sextrans-2019-sti.801

Background Syphilis is routinely diagnosed based on clinical findings and serological tests. Syphilis may be asymptomatic and in the early stages of infection serology may be false negative. This poses challenges in the diagnosis; missed infections may lead to onward transmission and late sequelae. The aim of this study is to assess the added value of testing various anatomical sites for DNA of *Treponema pallidum* (TP).

Methods The study is conducted at the STI clinic in Amsterdam. Eligible are men who have sex with men (MSM), 18 years or older with clinical signs or symptoms suggestive of syphilis stage 1 or stage 2, and those with serologically demonstrated early latent syphilis. Swabs taken from anus and pharynx, a urine sample, and a venous blood sample were tested using a validated in-house PCR targeting the *polA* gene (Tp-PCR). We intend to include 285 participants, with similar numbers of stage 1, stage 2, early latent syphilis, and patients without syphilis.

Results Between November 2018 and January 2019 we included 45 MSM. Eleven participants had syphilis stage 1, 10 stage 2, 11 early latent syphilis, and 13 did not have syphilis. Among the 11 stage 1 patients, 1 blood sample, 2 pharyngeal samples, 4 rectal samples and 3 urine samples were Tp-PCR positive. Among the 10 stage 2 patients, 2 blood samples, 8 pharyngeal samples, 6 rectal samples and 3 urine samples were Tp-PCR positive. Among the 11 early latent syphilis patients, 1 blood sample, 4 pharyngeal samples, 4 rectal samples and no urine samples were Tp-PCR positive. None of the samples of clients without syphilis were Tp-PCR positive.

Conclusion DNA of *T. pallidum* was frequently detected in various body compartments of 32 MSM diagnosed with syphilis. Tp-PCR on samples from various body locations might have a role in the diagnosis of early syphilis.

Disclosure No significant relationships.

P742 USING LOTTERY INCENTIVES TO ATTRACT SEXUALLY RISKY CHINESE MEN WHO HAVE SEX WITH MEN TO PREVENT SYPHILIS

¹Jason Ong, ²Changchang Li, ³Cheng Wang, ²Weibin Cheng, ⁴Weiming Tang*, ⁴Nie Juan, ⁵Hongyun Fu, ⁶M Kumi Smith, ¹Michael Marks, ³Bin Yang, ⁷Joseph Tucker. ¹The London School of Hygiene and Tropical Medicine, Clinical Research and Development, London, UK; ²Dermatology Hospital of Southern Medical University, Guangzhou, China; ³Guangdong Center for STD Control and Prevention, Guangzhou, China; ⁴UNC Project-China, Guangzhou, China; ⁵Eastern Virginia Medical School, Norfolk, USA; ⁶University of Minnesota Twin Cities, Epidemiology and Community Health, Minneapolis, USA; ⁷UNC Project-China, Guangzhou, China

10.1136/sextrans-2019-sti.802

Background Individuals with risk-loving attitudes may be more likely to participate in high-risk sex and gambling. We investigated whether a lottery-based financial incentive linked to syphilis testing may attract Chinese men who have sex with men (MSM).

Methods In July/August 2018, an online cross-sectional survey was conducted in China. The survey collected information on socio-demographic characteristics, risk-taking attitude, sexual behaviors and their likelihood to test for syphilis linked with a lottery-based financial incentive where men were eligible if they tested negative for syphilis. We asked about the minimum lottery prize that would attract them to participate. Risk attitude was measured with a validated risk attitude scale, which asked men about their likelihood to take risks in general: scores ranged from 0 (avoids taking risk) to 10 (fully prepared to take risks). Risk behaviours include having multiple sexual partners and condomless sex. Logistic regression analysis was used to examine the association of willingness to participate in the syphilis testing lottery with risk attitude score and behaviors.

Results 699 MSM were enrolled with a median age of 26 years (IQR:23–30). 70% self-identified as gay and 52% reported ever testing for syphilis. 64% stated they were likely/very likely to test for syphilis linked with a lottery incentive. The median amount for the lottery had an expected value of 10 RMB (\$1.50 USD, IQR:5–30 RMB). Being willing to test for syphilis when a lottery was offered was associated with a higher risk attitude score (OR 1.12, 95%CI:1.06–1.18), older age (OR 1.03 per year increase, 95%CI: 1.00–1.06), reported more than one partner in the last 3 months (OR 1.71, 95%