**Conclusions** Our analysis illustrates the limitations of relying on CS reported cases alone to accurately track adverse pregnancy outcomes associated with syphilis infection in pregnant women. A comprehensive syphilis control strategy targeting universal prenatal screening coverage, treatment completion, and early screening in pregnancy is essential for successful achievement of overall WHO and Chinese CS objectives.

#### P1-S1.48

### PREVALENCE OF SYPHILIS IN ANTENATAL CLINIC ATTENDERS AND ASSOCIATED RISK FACTORS

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**Background** Maternal syphilis can adversely affect pregnancy outcomes. This can be averted if women are tested and treated adequately during pregnancy. As part of a programme towards the introduction of routine syphilis testing and treatment in pregnancy in Ghana, the prevalence of syphilis in pregnant women attending a tertiary facility (also used as primary facility by pregnant women) was carried out. Associated risk factors for syphilis seropositivity was also determined.

**Methods** 841 pregnant women were tested for syphilis using a Rapid Plasma Reagin kit (Immutrep Carbon Antigen, Omega Diagnostics, UK). All sero-reactive samples were confirmed with a TPHA assay (Immutrep TPHA, Omega Diagnostic, UK). A questionnaire seeking socio-demographic information, history of previous pregnancy outcomes, and history sexually transmitted infections was administered to the enrolled women.

**Results** 6 out of the 841 (0.71%) women were seropositive for syphilis (RPR reactive, TPHA positive), out of which one had a high RPR titre (1:8), one a RPR titre of 1:4 and four had low RPR titres of 1:2. None of the risk factors studied were associated with syphilitic infection.

**Conclusion** A low prevalence of maternal syphilis was found in this urban population. This is low in comparison with a national prevalence of 6.5% among pregnant women, and high prevalences in rural settings in Ghana. This may be due to a low prevalence of syphilis in this urban area or better access to STI testing and treatment in this area which the women take advantage of due to the National Health Insurance Policy. Even with this low prevalence, studies indicate that testing and treatment is still cost-effective.

### P1-S1.49

# SYPHILIS PREVALENCE AND RISK FACTORS IN BRAZILIAN ARMED FORCES CONSCRIPTS, 2007

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The aim of this study was to describe the syphilis prevalence by geographic region and frequency of behaviours and symptoms related to STDs. A cross-sectional study was performed with Brazilian Armed Forces draftees in 2007. They answered a self-administered questionnaire on sociodemographic issues, sexual practice and condom use, STD symptoms and had a blood sample collected for syphilis test. A total of 35 460 draftees answered the questionnaire and 75.5% of these had already had sexual intercourse.

Overall syphilis prevalence was 0.53% (95% CI 0.45% to 0.61%). By geographic region—North (0.85%), Northeast (0.82%), being almost double the Midwest region (0.49%) and more than double the Southeast (0.34%) and Southern region (0.26%). Being 17 years old [OR=1.3 (95% CI 1.05 to 1.73)], having completed primary education [OR=1.5 (95% CI 1.03 to 2.22)], living in the North/Northeast region of the country [OR=1.2 (95% CI 1.04 to 1.36)], reporting a history of STD [OR=2.7 (95% CI 1.03 to 6.99)], being MSM [OR=4.5 (95% CI 2.59 to 7.81)], and reporting genital ulcer disease [OR=2.6 (95% CI 1.59 to 4.26)] were associated with syphilis. Addressing the young at the time of military enlistment may be a good moment to consider new strategies for accessing and counselling this population, thus allowing the implementation of a more appropriate healthcare policy.

#### P1-S1.50

## A DECADE OF EARLY SYPHILIS IN EAST AND INNER CITY LONDON

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**Background** Following a rise in cases of early syphilis in the UK, a programme of national enhanced surveillance (ES) was commenced in 2001 by the Health Protection Agency with the aims of establishing case distribution and trends in behaviour groups. Local analysis of data acquired via the ES has led to changes to our services in targeting specific high risk groups through increased outreach and community based screening and improvement in health promotion interventions. These include screening for syphilis in all patients attending STI/HIV clinics, dedicated MSM and CSW clinics and outreach work to gay saunas and CSW. The purpose of this study is to look at the epidemiology of infectious syphilis in East and Inner City London over the past decade to provide data on the burden of infection and to further inform local strategy as a measure of outbreak control.

**Methods** Data were obtained from patients with infectious syphilis attending the Royal London and St Bartholomew's Hospitals in the City and East London from 2001 to 2010. The data were collated and analysed from the ES form.

**Results** Of 778 patients, 39% had primary syphilis, 37% secondary syphilis and 24% had early latent syphilis; 94% were male, 6% female, 51% white British and 12% were Afro-Caribbean. Of the male, 85% were MSM. Three cases were age <16, 27% 17—30 years and 34% were >40 years of age. 257 (32%) were HIV positive. The main reasons for attendance at clinic were for routine screen (24%), symptom management (46%), consequent of partner notification (6%). 18% had one partner, 58 % had 2—9 partners, 19% had 10—99 partner, and 2% had  $\geq$ 100 partners past 3 months. 82% acquired their syphilis in London, 4% acquired elsewhere in UK, and 8% in Europe. 4% were female sex workers and 6% acquired their infection through sex workers. 10% acquired their infection in gay saunas, 21% acquired through clubs and 14% via the internet. There were 21 cases in 2001, 115 in 2006 and 44 cases in 2010.

**Conclusions** (1) The syphilis outbreak peaked in 2006 and has decreased by 62% in 2010 indicating that intervention strategy which is still in place, is having an effect. (2) More preventive work need to be done in clubs and on internet dating. (3) HIV coinfection is common and is a cause for concern as syphilitic ulcers enhanced transmission of HIV and HIV coinfection can lead to more severe syphilis manifestation. (4) 21% had 10 partners past 3 months, mainly untraceable, and sex abroad will continue to fuel the outbreak.