

## 018 – PILLS OF WHITE MERCURY: SYPHILIS PREVALENCE, SCREENING AND PREVENTION

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1:45 PM – 3:15 PM

### 018.1 PREVALENCE OF ACTIVE SYPHILIS AMONG TRANSWOMEN IN SÃO PAULO, BRAZIL

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**Background** Studies document that transwomen bear one of the most severe burdens of HIV worldwide, yet little information is available on the prevalence of other sexually transmitted infections (STI). Of particular concern in Brazil is the lack of data on the prevalence of syphilis specifically for transwomen in a background of increasing syphilis diagnoses among other populations. The aim of the present analysis was to estimate the prevalence of active syphilis infection among transwomen in a large, community-based sample from São Paulo, Brazil.

**Methods** We analyzed baseline data from the Trans\*National Study, a cohort being assembled to longitudinally track health issues among transwomen in São Paulo, Brazil. Participants were recruited using respondent-driven sampling (RDS), a long-chain peer-referral methodology to obtain population-based data from hard-to-reach communities. Participants completed a structured questionnaire, HIV testing, antibody tests for *Treponema pallidum*, and, if positive, Venereal Disease Research Laboratory (VDRL) test titers. Active syphilis was defined as a positive treponemal-specific antibody test plus a VDRL titer greater than 1:8, consistent with national treatment guidelines.

**Results** Of 729 transwomen interviewed, 32.1% were 24 years of age or younger and 75.6% earned under the city's minimum wage. A majority (453/729, 62.1%) tested antibody-positive for syphilis. Among those, the VDRL titer was greater than 1:8 for 37.5% (170/453), suggesting a point prevalence of active syphilis of 23.3% (95% CI 20.3–26.6) in the population. Of those with evidence of active syphilis, only 35.3% (60/170) reported ever having a syphilis test. HIV prevalence was 28.7% in the sample; 70 transwomen were living with HIV and had evidence of active syphilis (overall co-infection 9.6%).

**Conclusion** Our community-based sample in São Paulo, Brazil suggests one-fifth to one-fourth of transwomen have active syphilis, with possibly most going untreated. This study highlights the urgent need for screening and prevention strategies for STI infection, especially syphilis, for transwomen.

**Disclosure** No significant relationships.

### 018.2 ESTIMATING DISEASE BURDEN OF MATERNAL SYPHILIS AND ASSOCIATED ADVERSE PREGNANCY OUTCOMES IN CHINA

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**Background** Syphilis can be transmitted from mother to infant during pregnancy or delivery, causing a variety of adverse pregnancy outcomes including early fetal loss, stillbirth, neonatal death, prematurity, low birth weight and clinical evidence of congenital syphilis. In 2012, WHO estimated that 0.93 million maternal syphilis infections caused 0.35 million adverse pregnancy outcomes. However, there has been no report on the burden of maternal syphilis infections and associated adverse outcomes in China. This study aimed to estimate maternal syphilis infections and its associated adverse pregnancy outcomes in China.

**Methods** A WHO estimation model was used to estimate the number of maternal syphilis and adverse pregnant outcomes due to mother-to-child transmission. Data on the number of pregnant women, syphilis testing rate, syphilis seroprevalence rate and treatment rate were collected at county level in China in 2015.

**Results** Data were collected from 2,675 counties of 337 cities in 30 provinces (data were not reported in Tibet Autonomous Region) of mainland China in 2015 35,247 pregnant women were estimated to be infected with syphilis and the prevalence rate was 0.23%. It was estimated that a total of 5232 adverse pregnancy outcomes were caused by maternal syphilis infections, including 2,406 early fetal losses and stillbirths, 928 neonatal deaths, 788 preterm or low weight births, and 1,110 infected infants. The overall incidence rate of syphilis associated adverse pregnant outcomes was 34.1 per 100,000 pregnant women in China, which ranged from 5.8 to 218.0 per 100,000 pregnant women among different provinces.

**Conclusion** Maternal syphilis and associated adverse outcomes remain an important public health issue in China, and disease burden was relatively high in some areas. Improved syphilis screening, timely diagnosis and treatment are important for eliminating mother-to-child transmission of syphilis.

**Disclosure** No significant relationships.

### 018.3 DEVELOPMENT OF A SYPHILIS SERUM REPOSITORY FOR RESEARCH AND EVALUATION OF SYPHILIS DIAGNOSTICS TESTS IN THE UNITED STATES

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**Background** Ongoing collaboration between the Centers for Disease Control and Prevention's (CDC) Division of STD Prevention and the Association of Public Health Laboratories (APHL) is facilitating the development of a syphilis serum repository for research and evaluation of Food and Drug