

(323/931) in 2009. The majority of Ng isolates were susceptible to Cef and Spe. However, 7/110 isolates showed decreased susceptibility to Cef in one country in 2007 and 2/25 isolates showed intermediate susceptible to Spe in another country in 2009.

Conclusions Cip for primary treatment of uncomplicated gonococcal infections is currently recommended in 10 of the 11 countries, 1 country recommended Cef in 2007. The emergence and spread of resistance to Cip and Azi, indicate that current treatment guidelines be reviewed using respective national antimicrobial surveillance data. The emergence of a few strains with reduced susceptibility to third-generation cephalosporins indicates that on-going GASP surveillance is warranted.

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Epidemiology poster session 1: STI trends: Syphilis

P1-S1.46 SYPHILIS TRENDS IN ZAMBIA - A 14-YEAR OBSERVATION

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Background Syphilis and other STIs are prevalent in sub-Saharan Africa, perhaps due to lack of effective curative services. Estimates among pregnant women and in the general population in Zambia range from 6% to 18%, with maternal syphilis contributing to a high number of mid-trimester abortions, still births, prematurity, and morbidity and mortality of the child. Existing evidence suggests that control of syphilis and other ulcerative and non-ulcerative STIs remains one of the key strategies for HIV control. There are no recent studies from Zambia comparing syphilis prevalence with HIV trends.

Objectives To investigate trends in syphilis prevalence using Antenatal Clinic (ANC) sentinel surveillance data, and to validate the findings with population-based data.

Methods The analyses are based on ANC data from 1994 to 2008 from 22 sites. Estimates are compared with data from Zambia Demographic and Health Surveys (ZDHS) 2001/2002 and 2007. Analyses were restricted to women aged 15–49 years and 15–24 years. ORs with 95% CIs were used to test whether the prevalence trends were significant.

Results The overall syphilis prevalence dropped during the period 1994–2008 among both urban and rural women aged 15–49 years from 9.8% to 2.8% and 7.5% to 3.2%, respectively. Provincial variation was observed with a tendency towards a reduction. A sharper decline in syphilis prevalence was observed among women with more years in school than among those with fewer schooling years. A declining trend was also seen among young primi gravid women aged 15–19 years. A comparison of ZDHS 2001/2002 and 2007 findings also showed an overall reduction in syphilis prevalence in the general population.

Conclusions There was an overall reduction in syphilis prevalence and this decline was sharper than the decline in HIV during the same period. In part this could be attributed to the revamping of STI services in the country. Reduction in both HIV and syphilis prevalence could also suggest a reduction in the disease incidence and is likely to partially reflect positive sexual behaviour changes. Provincial variations were striking and need to be further studied to better guide specific STI prevention and control programmes in different geographical settings.

P1-S1.47 MEASURING AND PRIORITISING CONGENITAL SYPHILIS CONTROL IN GUANGDONG CHINA - A MARKOV MODEL TO INFORM POLICY IMPLEMENTATION

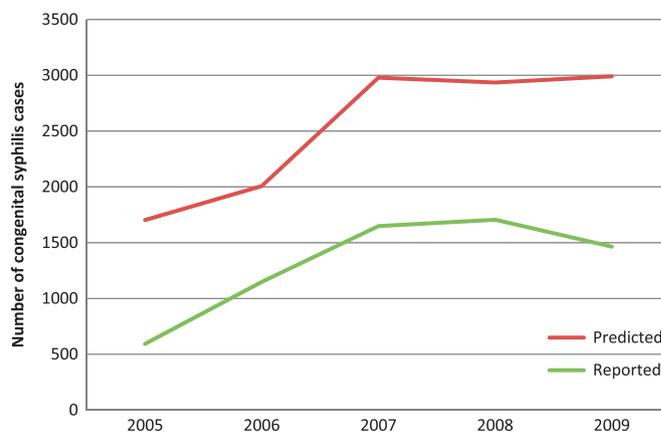
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Background Syphilis is a major public health problem in many regions of China, with increases in congenital syphilis (CS) cases causing particular concern. Precisely determining the extent of CS burden has been challenging given incomplete prenatal screening coverage and limited CS diagnostic capacity. As a result, both net under and over-reporting are plausible. In addition, there are a range of policies that could be expanded as part of the new National Syphilis Control Plan. This paper uses a Markov model to estimate the number of CS cases and other adverse outcomes and prioritise control measures in Guangdong Province, China.

Methods We developed a Markov model that incorporated age-stratified fertility rates, female adult syphilis reported cases, and empirical syphilis transmission rates to estimate the number of adverse pregnancy outcomes associated with prenatal syphilis infection on a yearly basis from 2005 to 2009. Guangdong Province was the focus of this analysis given access to high quality demographic and public health data required for model inputs. Adverse outcomes examined included CS, stillbirth, neonatal death, and low birth weight. Sensitivity analyses were performed to identify variables most influential for achieving WHO and Chinese program benchmarks.

Results Our model estimates 264 CS cases per 100 000 live births in Guangdong during 2009, substantially greater than the 129 reported CS cases per 100 000 live births. This is consistent with a net 49% under-reporting of CS cases in 2009. Higher syphilis prevalence among women in their peak childbearing years (20–30 years old) is closely related to greater numbers of CS cases see Abstract P1-S1.47 Figure 1. Expanding prenatal screening coverage was the single most important mechanism for preventing CS cases; increasing prenatal screening from 50% to 100% coverage would be associated with 98 CS cases averted per 100 000 live births. Alternatively, a comprehensive syphilis control strategy including 100% prenatal screening, 100% treatment completion, and 100% early screening in pregnancy would be associated with 212 CS cases averted per 100 000 live births.



Abstract P1-S1.47 Figure 1 Predicted and reported CS cases in Guangdong Province, China, from 2005 to 2009.