

16.8%). 91.2% (4048/4437) of participants consented to data linkage; of these 83.7% (3391) could be linked to GUMCADv2. Consent did not differ by age or gender, but wash- igher among men who have sex with men than heterosexual men (95.5% vs. 88.4%; $p < 0.01$), and lower among Black Caribbean than white participants (87.1% vs 93.8%, $p < 0.01$). Compared to all clinic attendees at study sites in the study period, a higher proportion of participants were < 25 years (30.8% vs 37.1%, $p < 0.001$), were black Caribbean (8.1% vs 14.5%, $p < 0.001$), and had a same-day sexual health screen (70.2% vs 77.4%, $p < 0.001$) or a chlamydia/gonorrhoea diagnosis (6.4% vs 7.7%, $p < 0.01$) recorded on GUMCADv2.

Conclusion Online behavioural surveys with data linkage to EPRs are highly acceptable to sexual health clinic attendees and technically feasible, and could improve the knowledgebase needed to tailor STI risk reduction efforts. However participants with higher risk profiles may be oversampled. Poor recruitment in some clinics was likely due to limited availability of clinic staff to facilitate and encourage use of clinic tablets

P3.29 **PREVALENCE OF HIV, SIFILIS, HEPATITIS B AND HEPATITIS C IN THE INMATES OF THE PENITENTIARY COMPLEX OF VALE DO ITAJAÍ-SC**

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Introduction To establish prevalence and identify risk factors for HIV, Syphilis, Hepatitis B and Hepatitis C infections in the Private Population of Freedom (PPF) in the Complexo Penitenciário do Vale do Itajaí-Canhanduba, Itajaí, Santa Catarina, Brazil.

Methods In the period between December of the year 2015 and August of the year 2016 a research was carried out at the Canhanduba penitentiary, Itajaí-SC, with quantitative and prospective character. The data collection was performed through a review of 921 medical records and rapid tests provided by the Ministry of Health - Brazil and the State Department of Health - SC. There were 655 interns participating initially, of these 170 did not want to be part of the research and 470 accepted to perform the tests.

Results The prevalence of infections in this population was 2.9% for HIV, 5.9% for Syphilis, 1.0 for HBV and 2.5% for HCV. This population were consisted of men, mostly in the age group between 20 and 40 years. It was possible to identify a high consumption of all kind of drugs in this population, being alcohol, marijuana and cocaine the most reported.

Conclusion In view of the observed aspects, it was possible to conclude that PPLF has a higher prevalence for infectious diseases when compared to the free population, since most of them present with a few years of studies, in use of illicit drugs and in activity unprotected sex. In addition to being exposed to a crowded environment, precarious and with a high turnover of people. The statistical data on this subject in Brazil are rare and out of date, thus not demonstrating the real epidemiological and serological situation of this population as a whole, so studies in several areas must be carried out in order to formulate new strategies of action.

P3.30 **PREVALENCE AND RISK BEHAVIOURS FOR SYMPTOMATIC SEXUALLY TRANSMITTED INFECTION AMONG THE RURAL POPULATION IN CENTRAL BRAZIL**

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Introduction A million people every day worldwide contract a Sexually Transmitted Infection (STI). In Brazil, studies show that rural living presents adverse conditions and promotes life behaviours that favour the acquisition of such diseases. The objective of this investigation was to estimate the prevalence of symptomatic STIs and to analyse the risk behaviours for these infections among rural settlers from the southwest of Goiás, Central Brazil.

Methods This is an observational, analytical and cross-sectional study. From May to June 2011, 395 individuals aged 12 years or older living in settlements in southwestern Goiás, Central Brazil, were recruited. All participants were interviewed by means of a structured questionnaire, containing questions about sociodemographic data and risk behaviours for STIs. The outcome variable was the clinical presentation of one of the following STI symptoms over the previous 12 months: vaginal discharge, urethral discharge, genital ulcers, pelvic inflammatory disease, and anogenital warts. The study was approved by the Research Ethics Committee of the Federal University of Goiás.

Results Of the total, 51.6% were male, 39.5% were aged between 12 and 40 years, and 42.5% had 4 or fewer years of study. The majority were married (68.4%), from Goiás (79%), and were Catholic (51.9%). The prevalence for symptomatic STIs among the settlers was 20.5%. It was observed that being male (adjusted OR: 0.17, $p = 0.00$), drinking alcohol (adjusted OR: 1.75, $p = 0.05$), and life history in rural encampment. (adjusted OR: 2.78, $p = 0.00$) were variables associated with STIs.

Conclusion The results support the need for effective strategies for prevention and control of STIs among the rural population, especially settlers, a population with significant potential in the chain of transmission of sexual infections. Health education and rapid testing for STIs should be implemented for individuals of rural encampment in Brazil.

P3.31 **HIGH RISK BEHAVIOURS AND SYPHILIS/HIV INFECTION AMONG MEN WHO HAVE SEX WITH MEN AGED 50 YEARS AND OLDER IN SHENZHEN, CHINA**

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Introduction The national average HIV prevalence among men who have sex with men in China increased from 1.4% in 2005 to 8.0% in 2015. There is a significant increase in the number of HIV new infections in individuals over 50 years of age in China and other countries. In China the prevalence of syphilis/HIV infection among MSM over 50 years is increasingly high but few reports pay attention to it. Our study was to investigate the high risk behaviours and syphilis/HIV

infection among men who have sex with men over 50 years in Shenzhen, China.

Methods Snowball sampling and respondent driven sampling were used to recruit MSM from 2009 to 2015 in Shenzhen, China. Questionnaire-based interviews were conducted on a one-on-one basis to collect data of socio-demographic information, HIV testing history, history of blood donation in recent two years, self-identified sexual orientation, role in homosexual behaviour, ever being money boy (MB) and clients of MB. 5 ml blood samples were taken and tested for treponema pallidum and HIV antibodies.

Results Among the total of 5221 MSM recruited, 186 (3.56%) cases were aged 50 years and older. MSM aged 50 years and older were more likely to get married, have high school or below level of education, have monthly income less than 3000 Yuan, work in service industry or be jobless. Most of them never used condoms for every act with female sexual partners. About one-third had more than 5 anal sexual partners in recent six months. They had higher rate of never using condoms when having anal sex compared with MSM aged less than 50 years. The rate of syphilis, HIV infection and syphilis-HIV co-infection among MSM aged 50 and older were 1.8917, 1.7387, 2.0365 times as high as that among MSM aged less than 50 years, respectively.

Conclusion MSM aged 50 and older had higher prevalence of syphilis and HIV and acted as bridge population to transmit syphilis/HIV. It is necessary to carry intervention measures targeted to them.

P3.32 ADOLESCENTS INFECTED BY SYPHILIS – A RETROSPECTIVE COHORT IN A REFERENCE SERVICE

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Introduction Syphilis persists as a major and ascendant health issue. However, the impact of this disease during the adolescence, a period of behavioural, sexual and psychologic vulnerabilities, is still underexplored. We aimed to evaluate the follow-up of syphilis infected adolescents attended at a reference service of sexually transmitted infections (STI).

Methods A retrospective cohort study using data from medical records of adolescents (10 to 19 years old) with diagnosis of syphilis attended at the states STI reference centre, from January to August 2012.

Results Among 776 adolescents attending the service, 58 had a diagnosis of syphilis (7.47%). The majority was male (51.7%), mean age was 16.8 (± 1.35) years, 92.3% attended school, and 58.1% had ≤ 8 years of schooling; 39.4% referred drinking alcohol and 39.5% drug use. Among the adolescents, 98.3% had already initiated sexual life, with the mean age of sexual debut of 14.2 (± 1.48) years, with an average of 2.33 (± 2.55) lifetime sexual partners. About 14.0% declared to be homosexual, 85.4% referred irregular condom use, 22.2% of the girls were pregnant, with mean age at first gestation of 16.0 (± 1.09) years. A parcel of 4.8% of the adolescents were HIV-infected, 31.0% reported a previous STI ($p=0.02$, OR 2.68, 95% CI 1.16–6.17), and 52.3% had another current STI. The mean number of medical visits was 2.33, 22.8% had primary syphilis, 17.5% had the secondary phase of the disease and 59.6% had latent or late syphilis. The social and

demographic variables were not statistically different among the adolescents in the different stages of syphilis. The genital ulcer complaint was related to the diagnosis of primary or secondary syphilis ($p=0.01$, OR 8.53, 95% CI 1.61–45.1). 91.4% of adolescents received treatment for syphilis and 56.6% performed a cure control.

Conclusion The high prevalence of other STIs associated with syphilis in adolescents demonstrates the limited knowledge of this population to care and prevention strategies, and remains a challenge for specialised services in the diagnosis and treatment of STI/HIV.

P3.33 SURVEILLANCE OF SYPHILIS IN THE STATE OF SÃO PAULO, BRAZIL

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Introduction In Brazil, has been mandatory to report congenital syphilis (1986), syphilis in pregnancy (2005) and acquired syphilis (adults) (2010) to the national surveillance system. Until June 2016, 2 27 663 cases of acquired syphilis were reported in Brazil, the state of São Paulo accounted for 44%. The aim of this study was to describe the trends observed from 2011 to 2015 of reported cases of acquired syphilis, syphilis in pregnancy and congenital syphilis in the state of São Paulo.

Methods An ecological study of historical series was conducted, assessing data of reported cases from 2011 to 2015 in the State of São Paulo, Brazil. The goodness of fit via r^2 and $p < 0.05$ were used to determine which models were most appropriate.

Results In the period 12 312 cases of congenital syphilis (CS), 25 399 cases of syphilis in pregnancy and 93 937 cases of acquired syphilis were notified. There was an increase number of cases (2011 and 2015): CS (1,517 to 3,437 - increased 2.3 times); syphilis in pregnancy (3,205 to 6,956 - increased 2.2 times); acquired syphilis (10,841 to 25,987 - increased 2.4 times). There was a trend of increase for the three reported diseases with an annual mean increase of 3894 cases/year ($r^2=0.9938$) for acquired syphilis, 998 cases/year ($r^2=0.9849$) for syphilis in pregnancy and 490 cases/years ($r^2=0.9969$) for CS. Analysing acquired syphilis by gender, there was a trend of 2528 cases/year increase in men (higher in the age from 20 to 24 years - 488 cases/year) and 1366 cases/year increase in women (higher in the age from 20 to 24 years - 264 cases/year). Among reported cases of syphilis in pregnancy, the highest increase was in the age of 20 to 24 years with 350 cases/year.

Conclusion The increase in reported syphilis cases could be explained by the reduction of underreporting; increase in early diagnosis of pregnant women; increase in cases of specific populations with higher frequency of young men. It is urgent to implement preventive and control actions towards young population, which seems to be disproportionately affected.