

TITLE: SEROPREVALENCE AND RISK FACTORS FOR HIV, HCV, HBV, AND *Treponema pallidum* AMONG INCARCERATED INMATES IN THE MUNICIPALITY OF CARUARU, PERNAMBUCO

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ABSTRACT: The prison population is at considerably high risk of contracting infections, such as HIV, hepatitis B, hepatitis C, and other STIs, due to injecting drug use, shared utensils, and unprotected sexual practices. Therefore, the penal system can function as a focus of these infections, which may spread to the general population. This study aimed to determine the HIV, HCV, HBV, and syphilis seroepidemiological profile of prisoners from the Plácido de Souza Juvenile Prison, in the municipality of Caruaru-PE. Between December 2016 and September 2017, 847 incarcerated inmates were evaluated for HBsAg, Anti-HCV and Anti-HIV, and 807 for Anti-*Treponema pallidum*. All serological markers were detected by rapid detection tests. After the screening, 112 prisoners were interviewed for the evaluation of risk factors, such as age, blood transfusions/hemoderivatives, tattoos, injecting drug use, intranasal administration of cocaine, and homosexual intercourse between men. Data were stored and evaluated in Microsoft Excel. Among the 112 evaluated inmates 5.36% (6/112) had received blood transfusion/hemoderivatives; 64.29% (72/112) had tattoos; 6.25% (7/112) used injectable drugs or had used them in the past; 36.60% (41/112) administrated intranasal cocaine or had administrated them in the past; 13.39% (15/112) participated in homosexual intercourse with other men; and 41.96% (47/112) reported not using protection during sexual intercourse. Regarding the tests, 8.31% (67/806) of the samples were reactive for *T. pallidum* antibodies; 1.18% (10/847) were anti-HIV reactive; 0.24% (2/847) were reactive to anti-HCV and 0.35% (3/847) to HBsAg. Only 0.24% (2/847) were coinfecting with HIV and syphilis. It was identified the presence of incarcerated inmates affected by infections with relevance to public health. Besides that, most prisoners were susceptible to the evaluated infections. Therefore, prevention strategies must be considered, given the sharing of pavilions and the reported drug-using, tattooing, and unprotected sexual intercourse.

KEYWORDS: Prison; Anti-HIV antibodies; Hepatitis B virus; Anti-HCV antibodies; Syphilis.