

# **SYPHILIS IN PREGNANT WOMEN LIVING WITH HIV/AIDS IN BRAZIL AND THE RELATIONSHIP BETWEEN CO-INFECTION AND MOTHER TO CHILD TRANSMISSION OF HIV**

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## **Background:**

HIV and syphilis are sexually transmitted infections of significant concern during pregnancy, impacting numerous women and children globally. However, limited data exist regarding the prevalence of syphilis infection among pregnant women living with HIV/AIDS and its influence on mother-to-child transmission (MTCT) of HIV. The present research aims to analyze HIV and syphilis co-infection during pregnancy through analysis of surveillance data from Brazil.

## **Methods:**

This retrospective cohort study utilized secondary data from the Ministry of Health's information systems. It included reported cases of pregnant women with HIV and syphilis, with childbirth between 2016 and 2020, and children with HIV/AIDS with year of birth from 2016 to 2020. Cross-referencing was performed between the notification databases of pregnant women with HIV/AIDS and syphilis, and between pregnant women with HIV/AIDS and children with HIV/AIDS to identify potential mother-child pairs. Pregnant women without a paired child with HIV were considered to have no outcome of MTCT of HIV. Logistic regression analysis was performed to estimate the effect of MTCT, with a final significance level of 5%.

## **Results:**

Among 40,634 pregnant women with HIV, 2,788 were coinfecting with syphilis, yielding a coinfection rate of 6.9%. MTCT of HIV was significantly higher among HIV-positive pregnant women coinfecting with syphilis (2%) compared to those without coinfection (1.2%), with an odds ratio of 1.704 (CI 1.29-2.25,  $p \leq 0.05$ ). Coinfection with HIV and syphilis was more prevalent among younger women (aged 10 to 24), non-white individuals and people with lower educational attainment, and also, on those who did not receive prenatal care and had late laboratory evidence of HIV during pregnancy, indicating a more vulnerable population among coinfecting pregnant women.

## **Conclusion:**

Coinfection with syphilis was associated with higher MTCT rate of HIV compared to HIV-positive pregnant women without syphilis. Intersectoral public policies addressing social determinants are essential to achieve the goals of MTCT elimination.

## **Disclosure of Interest Statement:**

None.