

# High Prevalence Of Alpha herpes Virus 2 (HSV-2) Positivity In Prisons From Midwest Brazil: A Cross-Sectional Study

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## SUBJECT AREAS

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*Human herpes virus, seroprevalence, prisoners, epidemiology, Brazil*

## Abstract

Herpes virus 2 (HSV-2) is the main cause of genital herpes, one of the most prevalent sexually transmitted infections (STIs) in the world. STIs are major public health problems in prisons because of the behaviors of prisoners and the presence of other factors that increase the risk of transmission. The present study aimed to estimate the prevalence and risk factors associated with HSV-2 infection at 12 prisons in Mato Grosso do Sul, Brazil. We tested 872 serum samples (732 from males, 140 from females) for anti-HSV-2 IgG, and tested the positive samples ( $n = 184$ ) for anti-HSV-2 IgM. Anti-HSV-2 IgG positivity ( $n = 85$ , 43.1%, 95% CI = 34.6 to 40.4). The prevalence of HSV-2 positivity was much greater than reported in the general population of Brazil and in other prison populations worldwide. There was a greater risk of HSV-2 positivity in prisoners who were older, female, unmarried, HIV positive, positive for other STIs, not previously incarcerated, in the same cell with more than 26 individuals, and in those who reported having had genital discharge in the past month, having had a homosexual relationship in recent months, and not using or occasionally not using condoms during sexual intercourse. Further analysis of prisoners with active HSV-2 infections (anti-HSV-2 IgM positivity) indicated that unmarried status and the presence of 26 or more prisoners in the same cell increased the risk for active HSV-2 infection. This study provides important data on HSV-2 seroprevalence in the prison population of Brazil, and identified risk factors associated with HSV-2 infection. These data provide important information needed to implement procedures that better prevent and control of STIs in prison populations.

## Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the manuscript can be downloaded and accessed as a PDF.

## Figures

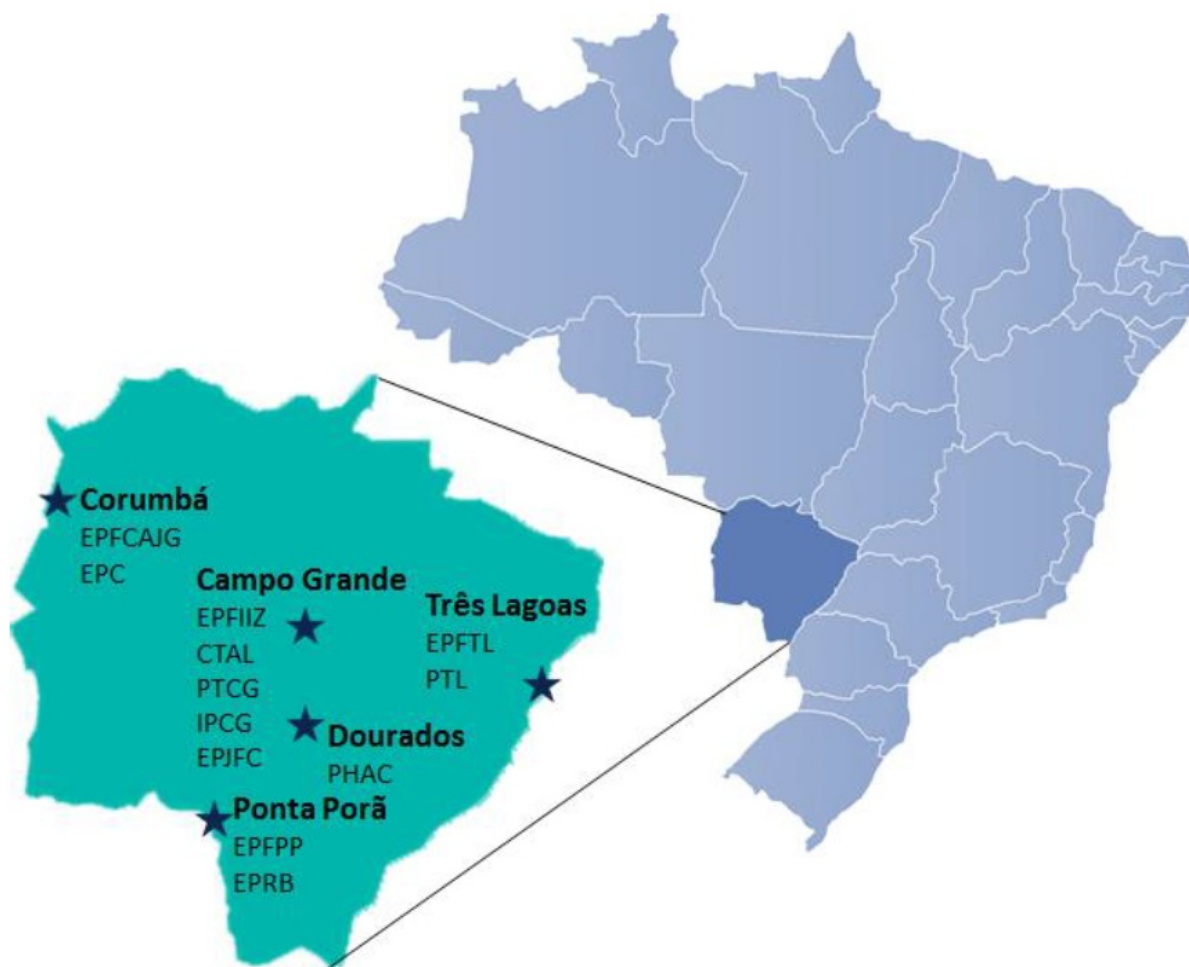
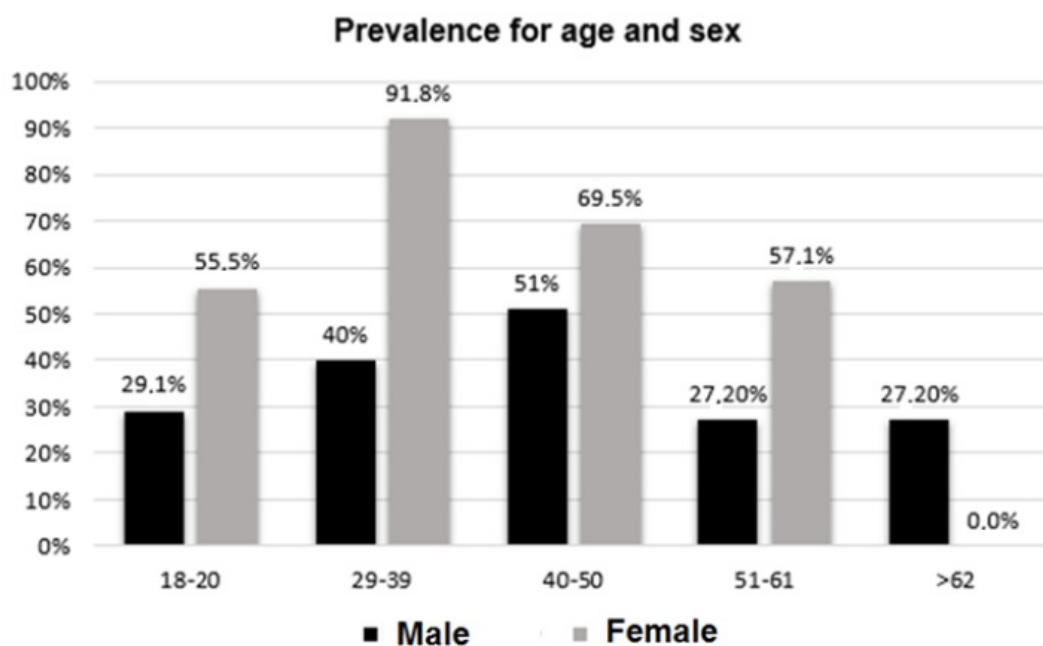


Figure 1

Locations of the 12 study prisons in the state of Mato Grosso do Sul, Brazil . Abbreviations:

EPFCAJG, women's penal establishment Carlos Alberto Jonas Giordano; EPFTL, women's penal establishment Três Lagoas; EPFPP, women's penal establishment Ponta Porã; EPFIIZE, women's penal establishment Irmã Irma Zorzi; EPC, penal establishment de Corumbá; PTL, penal establishment Três Lagoas; EPRB, penal establishment Ricardo Brandão; CTAL, Centro de Triagem Anozio Lima; PTCG, penal establishment de Campo Grande; IPCG, penal establishment Campo Grande; EPJFC, penal establishment Jair Ferreira de Carvalho; PHAC, penal establishment Harry Amorim Costa.



\*Here and below: Presence of anti-HSV-2 IgG.

Figure 2

Prevalence of HSV-2 positivity\* among male and female prisoners in different age groups.

## Supplementary Files

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