

Modelo:**RISK FACTORS PREDICTING EXPOSURE TO HUMAN PAPILLOMAVIRUS INFECTIONS IN TWO POPULATIONS BELONGING TO DIVERSE SOCIO-ECONOMICAL STRATUS FROM RIO DE JANEIRO, BRAZIL**

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In Brazil, cervical cancer is the most frequent cause of death from cancer. Large epidemiological studies have shown that the risk of developing such neoplasia is strongly associated with the persistence of high risk genital papillomavirus (HPV). Since HPV infection is the most important but not the exclusive risk factor to cancer, investigation has focused on the role of specific socio-demographic factors such as smoking habits, promiscuous sexual life, low socio-economic status, among others. In this study, we investigated HPV infection in patients from two municipalities from Rio de Janeiro State: Maricá (Group I) and Itaboraí (Group II) and possible co-factors related to HPV infection. Tests were conducted using Pap screening and generic/specific detection of HPV DNA by PCR. In Group I, 10.7% of the patients presented HPV, as detected by generic PCR while in Group II, HPV was detected in 31.1% of the samples. HPV16 was the most prevalent type found in both groups (5.3% and 10%), followed by HPV 18 (1.3 and 4.7%). The odds ratio and p value revealed that there were statistically significant differences between the groups regarding HPV infection, age, ethnic link, parity, tobacco smoking and use of oral contraceptive. The analysis was concluded by a multivariate regression to identify co-factors predictive of HPV status. As expected, some factors lost their significance but several retained their predictive value. For Group I, the reference group of this study, Pap test was the most powerful independent predictor of HPV ($p=0.0001$), followed by age under 30 years old and number of sexual partners. For group II, again the Pap test result was the most relevant predictor ($p= 0.0001$) along with alcohol use ($p=0.0004$). The finding of diverse profile related to risk of exposition within the same geographical region plays a challenge to Public Health that ought to develop general and also specific strategies of screening all Brazilian women.

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