

INFLUENCE OF THE HUMAN DEVELOPMENT INDEX ON DETECTION AND MORTALITY FROM CERVICAL CANCER: A STUDY IN THE MUNICIPALITIES OF PARÁ, BRAZIL

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Introduction: Cervical cancer is one of the leading causes of morbidity and mortality among women in Brazil, especially in regions with lower socioeconomic development. Although this condition is largely preventable through regular cytopathological screening (Papanicolaou test), inequalities in access to preventive services persist. Thus, the Municipal Human Development Index (MHDI), which encompasses income, education, and longevity indicators, is a useful tool to identify how structural factors influence health outcomes. In this context, understanding the association between MHDI and health indicators related to cervical cancer can provide important insights for formulating more effective and equitable public policies. **Objectives:** To analyze the relationship between the Municipal Human Development Index (MHDI) and indicators of detection and mortality from cervical cancer in the municipalities of the state of Pará, Brazil, during the period from 2019 to 2023. **Methods:** This is a descriptive study with a quantitative approach, based on secondary data obtained from the Tabnet system of the Ambulatory Information System (SIA/SUS) and the Mortality Information System (SIM). Municipalities in Pará with complete data on the number of cytopathological exams performed, number of deaths due to cervical cancer, and respective MHDI values—extracted from the Atlas of Human Development in Brazil—were included. Statistical analysis was performed using Microsoft Excel software, employing Pearson’s correlation coefficient (CORREL function) to evaluate the association between MHDI and the selected health indicators. **Results:** The correlation between MHDI and the number of cytopathological exams performed was analyzed in 143 municipalities with complete data, resulting in a coefficient of 0.24, indicating a weak positive correlation. It was observed that municipalities with higher MHDI performed an average of approximately 3,200 exams, while those with lower MHDI recorded fewer than 1,000 exams, evidencing inequality in preventive coverage. Regarding mortality, the analysis included 137 municipalities and found a correlation coefficient of 0.42, indicating a moderate positive correlation. This result may reflect a greater capacity for death

registration in more developed municipalities but also suggests that, despite better structural conditions, barriers to effective screening and timely treatment persist, contributing to the maintenance of high mortality rates. **Conclusion:** The results demonstrate that human development influences, albeit unevenly, the indicators of prevention and mortality due to cervical cancer. The presence of positive correlations with MHDl reinforces the importance of public policies aimed at health equity, with strategies that expand access to screening, diagnosis, and treatment services, especially in municipalities with lower socioeconomic development. Thus, overcoming regional inequalities is essential to reduce morbidity and mortality from this disease and guarantee the right to health for women in Pará.

Keywords: Cervical cancer; Health inequalities; Human Development Index; Cytopathological exam; Female mortality.