

## EPIDEMIOLOGICAL PROFILE OF CERVICAL CANCER IN PARA AFTER THE INTRODUCTION OF HPV VACCINATION (2014-2024)

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**Introduction:** Cervical cancer (CCU) is one of the most common neoplasm among women in Brazil, posing a significant public health challenge, especially in regions with limited access to preventive care and early diagnosis. Persistent infection with oncogenic types of human papillomavirus (HPV) is the primary etiological factor, and interventions such as vaccination and cytology-based screening are crucial strategies for disease control. In the state of Pará, HPV vaccination was introduced in 2014. Since then, efforts have focused on assessing its impact on disease indicators over the past decade.

**Objective:** To analyze the epidemiological profile of cervical cancer in the state of Pará between 2014 and 2024, evaluating the impact of HPV vaccination and key indicators such as incidence, vaccination coverage, and the number of cytopathological exams performed. **Methods:** This retrospective descriptive study with a quantitative approach is based on secondary data from official sources, including the National Cancer Institute (INCA) and the Cervical Cancer Information System (SISCOLO). We compared estimates of incidence, vaccination coverage, and the number of cytopathological exams conducted in the triads 2011-2013, 2014-2016, and 2015-2017, focusing on the period from 2014 to 2024. **Results:** According to INCA and SISCOLO, in the 2014-2016 triad, before the expected impact of vaccination, Pará had an estimated 830 new CCU cases, with a crude incidence rate of 21.13 per 100,000 women. In the 2023-2025 triad, the absolute number of cases remained at 830, but the rate decreased to 18.65 per 100,000 women. In 2015, vaccination coverage with the first dose was 50.87%, lower than regional (58.67%) and national (70.94%) averages. In the period 2014–2017, the state reached 68.62% coverage for the first dose and only 36.57% for the second. Regarding screening, there was a decrease in the average of cytopathological examinations performed: 139,107 in the 2011-2013 triennium, against 102,993 in the 2015–2017 triennium. **Conclusion:** The data indicate a modest reduction in the incidence rate of cervical cancer in Pará, even a decade after HPV vaccine introduction. Stability in absolute case counts and high mortality rates underscore the persistence of the disease as a public health challenge. Low vaccination coverage and reduced preventive screening may have limited the expected impact of control strategies. These findings highlight the need to strengthen preventive actions, expand vaccination coverage, improve access to screening, and intensify awareness campaigns to effectively reduce disease burden.

**Keywords:** Cervical cancer; HPV vaccination; Epidemiology; Pará; Public health