

CAPÍTULO 11

THE IMPACT OF DELAYS IN SUS SERVICES ON THE TRANSMISSION OF INFECTIOUS DISEASES: FOCUS ON HIV TRANSMISSION IN RIO DE JANEIRO

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ABSTRACT

Rapid access to health care is essential to prevent and control infectious diseases such as HIV. In Brazil, delays in the Unified Health System (SUS) contribute to difficulties in the prevention, diagnosis, and treatment of HIV, which can increase transmission rates and weaken public health initiatives. This quantitative study analyzes how these delays impact the rate of HIV infection in Rio de Janeiro, using regional data on waiting times and infection rates. The findings reveal a relationship between prolonged waiting times and increased risk of undiagnosed and untreated infections, highlighting the need for improvements in the SUS to reduce transmission rates.

Keywords: HIV, SUS, delays in care, transmission of infectious diseases, public health, Rio de Janeiro.

INTRODUCTION

The Unified Health System (SUS) in Brazil provides essential services to millions of Brazilians, including those living with or at risk of contracting HIV. Despite its importance, the SUS often faces accessibility and efficiency challenges, with long waiting times for appointments, delays in carrying out diagnostic tests, and insufficient availability of antiretroviral therapy (ART) for those diagnosed with HIV. These delays are especially damaging in infectious diseases, where early diagnosis and treatment are key to reducing transmission.

Data from the Notifiable Diseases Information System (SINAN) and epidemiological indicators reveal that, despite advances in detection and treatment, Rio de Janeiro still has mortality and HIV detection rates higher than the national average. Delays in initial treatment contribute to the progression of infection, and these delays are pointed out as one of the factors that potentially increase the HIV incidence rate in regions of high vulnerability in the state. According to the Ministry of Health, Rio de Janeiro had a detection rate of 23.2 cases of HIV per 100 thousand inhabitants in 2021, above the national average of 17.8 per 100 thousand inhabitants.

Research Question

To what extent do delays within the SUS contribute to the spread of infectious diseases, particularly HIV, and what factors exacerbate these delays?

METHODOLOGY

This study uses a quantitative method to correlate data on waiting time for diagnosis and HIV incidence rate in Rio de Janeiro.

Quantitative Data Collection

- **Data Sources:** Data on waiting times and access to ART were obtained from the Ministry of Health, SINAN and the EpiRio Epidemiological Observatory.
- **Variables Analyzed:** Waiting times for initial consultations, missed HIV diagnosis rates, ART initiation rates, regional HIV incidence rates.
- **Sample:** Data from 12 regions with high HIV incidence were analyzed, covering periods from 2018 to 2022.

RESULTS

Quantitative Findings

In 2021, the average wait for an HIV test in high-incidence areas of Rio de Janeiro was 45 days, while the delay for the start of ART was up to 30 days. These areas recorded a 15% higher HIV detection rate than regions with shorter waiting times.

A statistical analysis revealed a significant correlation ($r = 0.68$, $p < 0.05$) between prolonged waiting times and increased rates of infection, suggesting that delayed access to diagnosis and treatment contributes substantially to HIV transmission.

DISCUSSION

The data show that regions with longer waiting times for HIV tests and initiation of ART have higher incidence rates, pointing to a critical need for faster access to care in the SUS. This finding is reinforced by data from the EpiRio Observatory and SINAN, which indicate that areas with high population density and long waiting times have disproportionately high HIV incidence. Therefore, improvements in care times are needed to reduce the spread of infection and protect vulnerable populations.

CONCLUSION

This study presents evidence that delays in the SUS significantly impact the spread of HIV, highlighting the need for policy interventions to reduce waiting times and improve the efficiency of health services. Allocating resources for testing and provision of ART in high-incidence areas, together with public health initiatives aimed at rapid diagnosis and treatment, can help mitigate HIV transmission. Public health institutions can play a key role in

raising awareness through educational campaigns, support groups, outreach programs, and collaborative care approaches, encouraging timely adherence to treatment among at-risk individuals.

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