

# Spatial analysis in the identification of risk areas for *Schistosomiasis mansoni* in the State of Sergipe, Brazil, 2005-2014.

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**INTRODUCTION:** Schistosomiasis is one of the worlds prevailing infectious and parasitic diseases. The objective of this work is to analyze spatial patterns in the identification of risk areas for *schistosomiasis mansoni* and its positive trend in the state of Sergipe, Brazil, in the period, 2005 to 2014. **METHODS:** We conducted a time series ecological study with secondary data from the Information System Control Program of Schistosomiasis (SISPCE). Temporal trends were analyzed obtaining the annual percentage change (APC) in the rates of annual prevalence. In addition to the description of general indicators of the disease, spatial analysis was descriptive, by means of the estimator of intensity kernel, and spatial dependence by indicators of global Moran (I) and Local (LISA). Thematic maps of spatial distribution were made identifying priority intervention areas in healthcare. **RESULTS:** There were 78,663 cases of schistosomiasis, an average of 8.78% positivity were recorded; 79.81% of the cases were treated; Sergipe showed a decreasing positive trend (APC: -2.78). There was the presence of spatial autocorrelation, and the significant global Moran index ( $I = 0.19$ ;  $p\text{-value} = 0.03$ ). We identified clusters, considered high-risk areas, mainly located in the northeast and southcentral of the state with equally high infection rates among themselves. **CONCLUSION:** There was a decreasing positive trend of schistosomiasis in Sergipe, despite the reduction in the number of examinations. Spatial analysis identified the geographic distribution of risk with defining priority areas for maintenance and intensification of control interventions.

**Keywords:** schistosomiasis, epidemiology; spatial analysis.