

Political Continuity and Malaria Dynamics in the Brazilian Amazon, 2004–2024

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ABSTRACT

Background. Malaria control in Brazil was historically implemented through a centralized vertical program, but decentralization in the early 2000s gradually transferred responsibility to state and municipal governments. In decentralized health systems, political turnover may disrupt institutional continuity and affect the sustainability of control activities. We assessed whether municipal administrative continuity is associated with differences in malaria incidence.

Methods. We linked municipality-level electoral data from the 2008–2020 election cycles with national malaria surveillance records from 2004–2024 for municipalities in the Brazilian Amazon. The primary outcome was malaria incidence during the four-year mayoral term following each election. We estimated multivariable negative binomial regression models adjusted for pre-election malaria trends and baseline transmission intensity to assess the association between administrative continuity and post-election malaria incidence.

Findings. Municipalities experiencing new political leadership had significantly higher cumulative malaria incidence over the subsequent term compared with municipalities with political continuity (incidence rate ratio [IRR] = 1.204; 95% CI: 1.078–1.343; $P = 0.001$), corresponding to a 20.4% increase in post-election incidence. The association was not statistically significant in the first post-election year but became significant from the second year onward and persisted through the remainder of the administrative term.

Interpretation. Administrative continuity at the municipal level is associated with lower malaria incidence in Brazil, where malaria control is decentralized. Political turnover may disrupt institutional capacity and weaken the implementation of control activities. Strengthening mechanisms that preserve technical expertise, programmatic continuity, and institutional memory across political cycles may enhance the resilience of malaria control.