

REVIEWER'S REPORT

Manuscript No.: IJAR-55781

Title: Assessing Malaria and Typhoid Fever Trends Using Correlation and Covariance: Case Study of Adamawa Region (Cameroon)

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*).....

Rating	Excel.	Good	Fair	Poor
Originality		-		
Techn. Quality		-		
Clarity		-		
Significance		-		

Reviewer Name: Dr Gulnawaz

Detailed Reviewer's Report

The manuscript presents a statistically grounded and relevant analysis of the interdependence between malaria and typhoid fever in the Adamawa Region using correlation and covariance techniques; however, several areas require refinement before publication. The abstract (lines 1–25) clearly summarizes the objectives and main findings, but it would benefit from a more concise description of the dataset and clearer mention of methodological novelty. The introduction (lines 2–20) effectively contextualizes the epidemiological relevance of both diseases, although some background references could be synthesized more tightly to avoid excessive enumeration. The methodological section (lines 53–149) is technically sound and well-structured, particularly in its discussion of stationarity and fractional differentiation (lines 154–159), which is a notable strength, but the rationale for choosing fractional differentiation over conventional differencing should be more explicitly justified. The results section (lines 162–235) presents descriptive and inferential statistics clearly; however, figures could be more effectively integrated into the narrative with explicit interpretation of scale and confidence. The interpretation of high cross-correlation values across lags (lines 209–214) is compelling, yet caution should be exercised in avoiding implicit causal inferences. The discussion (lines 237–266) appropriately situates the findings within existing literature, though it would benefit from a more critical comparison with prior works that also employ

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rolling or lag-based correlation. Finally, while the conclusions (lines 273–279) are consistent with the results, they could be strengthened by proposing more specific public health applications and data integration strategies. Overall, the paper is methodologically robust and relevant, but requires moderate revision in clarity, justification of methodological choices, and interpretive caution.