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## Climate Variation and Malaria Prevalence in Warri Metropolis

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### ABSTRACT

This study examined the relationship between climate and prevalence of malaria in Warri metropolis. To achieve this, the study generated data from archival material from the meteorological agency and hospitals. Climate data of temperature, rainfall and humidity were collected from the Nigeria Meteorological agency, Warri and malaria in-patient and out-patient records from the two (2) central hospitals and one (1) renowned hospital each from the three (3) local Government Areas for a period of twenty (20) years (1990-2009). The data were analyzed using the Multiple Regression. From the study, the rainfall and temperature in Warri metropolis has increased over the years (1907-2009) by 122.82 mm and 1.3°C. Thus, if this warming continues there will be a risk of between 1.4°C and an urban warming of 4.18°C, indicating climate change. There is a significant relationship between malaria and climate parameters (rainfall, temperature and humidity) which were evident at F value of 4.429 which is greater than the critical table value of 4.35, which implied that the model is significant and thus, malaria prevalence in Warri metropolis is significantly dependent on rainfall, relative humidity and temperature. It is anticipated that an increase in temperature and relative humidity resulted to a corresponding increase in the number of malaria cases, it is therefore recommended that any policy aimed at reducing the prevalence of malaria in Warri and environs must necessarily be imbued with programmes that have objectives of mosquitoes reduction through the improvement of our environment which includes the climate.

### KEYWORDS

Climate Change; Malaria; Epidemiology; Prevalence; Warri Metropolis

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