

PREVALENCE OF MEASELS AMONG UNDER-FIVE CHILDREN IN YOLA METROPOLIS, NIGERIA

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Abstract

Weather parameters such as rainfall, relative humidity, temperature and so on, have effects on infectious diseases and have been well documented for ages. The study analyze the effects of some weather parameters on the prevalence of Measles among under five children in Yola metropolis. Methods and procedures employed for the conduct of the study are hospital records on measles cases whereas for weather parameters were obtained from Nigerian Meteorological Agency (NIMET), Abuja for Yola metropolis between 2015 – 2019. Prevalence formula was used to calculate Measles cases and trend line equations were fitted to indicate changes. Time series analysis was used to analyze the trends of each of the data collected. Linear regression analysis was used to establish interaction between weather element and prevalence of measles. The analysis showed that measles slightly decreased in trend with an annual -0.003 slope. The mean monthly prevalence of measles shows highest prevalence in the months of March through April. While, temperature and relatively humidity showed decreasing trends, except of wind speed that showed increasing trend. Across the years under study (2015 – 2019), temperature showed strong contribution toward measles prevalence with 21.1%, 36.6%, 25.5%, 19.3% and 16.1% for 2015, 2016, 2017, 2018 and 2019 respectively. The study concluded that temperature and relative humidity are influence measles prevalence among under-five children in Yola metropolis, Adamawa State. The study recommended among others that the Adamawa State government and relevant agencies should enlighten people in Yola metropolis on effect of climatic change that could lead to high case of measles among under-five children.

Keywords: Weather Elements, Effects, Measles, Prevalence, Under-Five