



Statistical Neural Network Modelling of Cholera in Nigeria and South Africa with Implications for Psychosocial Support

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ABSTRACT Cholera has been studied from different perspectives since its first outbreak in the 16th century. However, little is known about the psychosocial support needed, which becomes critical because its eradication has continued to defy attempts by many governments. This paper is based largely on data obtained from World Health Organization annual observatory website for Nigeria and South Africa. Cases of missing observations were estimated using spline interpolation. Statistical neural network was used to estimate the fatality rate, and forecasts were made for 2030. Results showed that fatality rates were decreasing in both countries, with a faster rate in Nigeria (-0.04) compared to South Africa (-0.06). However, the disease would still not have been eradicated by 2030. This calls for stronger concerted efforts by the government and international community in combating the disease in Africa. One major intervention would be the application of targeted psychosocial support that victims, friends, families and communities of victims lack at the moment.