

Original Research Article

NUMERICAL SIMULATION OF THE DETERMINISTIC MODEL OF THE UNDER-FIVE YEAR'S PNEUMONIA IN KENYA

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Abstracts

In this paper the numerical simulation of the childhood pneumonia deterministic model are determined. The estimated parameters and the under-five year's population data for year 2013 was used to simulate the developed deterministic model, using Matlab inbuilt ordinary differential equation (ode) solver. Graphical results predicting the dynamics of the under-five year's pneumonia were obtained for a period of twenty years. Simulations indicated that sustained vaccination and treatment are likely to reduce the burden of the under-five year's pneumonia over a period twenty years.

Keywords :

Ode solver and simulation.