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*Spread and control of dengue with limited public health resources*

A deterministic model for the transmission dynamics of a dengue disease, with a nonlinear recovery rate reflecting the public health resources, is formulated to study the impact of available resource of the health system on the spread and control of dengue fever. Model results indicate the existence of multiple endemic equilibria; one of them can be driven to change stability, a Hopf bifurcation occurs when parameters vary, in particular the one representing the public health resource. Additionally, our model exhibits the phenomenon of backward bifurcation as a common feature of vector-borne diseases. Our model and results can be helpful for public health plan the resources essential for control of dengue disease.