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Dengue in Madeira Island

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ABSTRACT

Dengue is a vector-borne disease and 40% of world population is at risk. Dengue transcends international borders and can be found in tropical and subtropical regions around the world, predominantly in urban and semi-urban areas. A model for dengue disease transmission, composed by mutually-exclusive compartments representing the human and vector dynamics, is presented in this study. The data is from Madeira, a Portuguese island, where an unprecedented outbreak was detected on October 2012. The aim of this work is to simulate the repercussions of the control measures in the fight of the disease.

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