DENGUE DISEASE IN THAILAND AND MATHEMATICAL MODEL FOR DYNAMICAL TRANSMISSION OF DENGUE DISEASE

Puntani Pongsumpun
Department of Mathematics, Faculty of Science,
King Mongkut's Institute of Technology
Ladkrabang,
Chalongkrung road, Ladkrabang, Bangkok, 10520
THAILAND

Pratchaya Chanprasopchai
Department of Mathematics, Faculty of Science,
King Mongkut's Institute of Technology
Ladkrabang,
Chalongkrung road, Ladkrabang, Bangkok, 10520
THAILAND

ABSTRACT

In this paper, we proposed the historical data of dengue disease in Thailand. The reported case and death due to dengue disease are presented by total number, region, month, age, and occupation. The mathematical model is the key to analyze dengue disease which can investigate the reproductive number in order to control the outbreak. At the current, the best way to control the outbreak is controlling the environmental of spreading of dengue disease.

Keywords: Basic reproductive number, dengue disease, endemic equilibrium state, mathematical model, outbreak.