



# The highlight of Vector-borne Diseases

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# Outline

- **Mosquito-borne diseases (CHIKV, ZIKV)**
  - Global warming**
  - The basic reproduction number ( $R_0$ )**
  - Co-infection**
  - Clinical characteristics**
- **Case study: Chikungunya**
  - Clinical manifestation: Newborn, Infant**
  - Severe atypical manifestations**
    - Encephalitis**
    - Viral sepsis/myocarditis and multiorgan failure**
    - Active bleeding**

# Mosquito-borne diseases

*Aedes aegypti*



*Aedes albopictus*



Dengue

Chikungunya

Zika



*Culex*



West Nile virus,  
Japanese encephalitis,  
filariasis

*Anopheles*



Malaria

# Chikungunya cases in Thailand between 2008 and 2020





