

Chinese Notifiable Infectious Diseases Surveillance Project

Dengue

November 2023

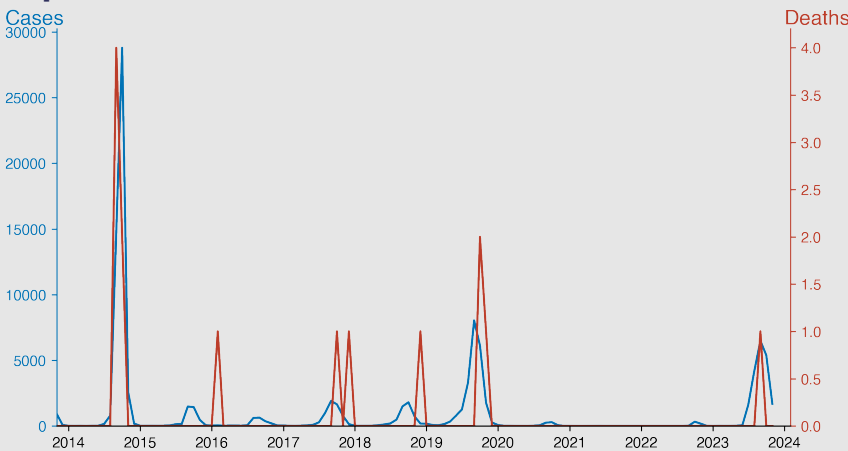
Introduction

Dengue is a mosquito-borne viral disease prevalent in tropical and subtropical regions around the world. Caused by any one of four related viruses transmitted by Aedes mosquitoes, it manifests through high fever, severe headache, joint and muscle pain. Severe forms, such as dengue hemorrhagic fever and dengue shock syndrome, can lead to critical conditions. There is no specific treatment, but early detection and access to medical care significantly reduces risk of fatality. Prevention lies largely in controlling mosquito population and avoiding bites.

Highlights

- There is a clear seasonality in dengue cases, peaking between July and November, associated with the Aedes mosquito breeding season.
- A significant spike in cases was observed in 2023, suggesting an outbreak or decreased vector management, peaking in September with 6,494 cases.
- The death toll remains low, with only one death reported in September 2023, underlining the necessity for continuous surveillance and response.
- An urgent uptick in cases in 2023 calls for intensified public health strategies to address the dengue challenge effectively.

Temporal Trend



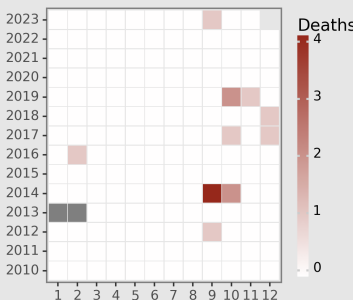
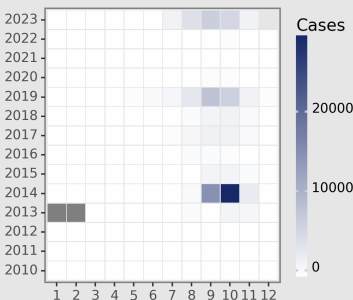
Cases Analysis

The Dengue cases in Chinese mainland present a cyclical pattern peaking predominantly in the late summer and autumn, with the significant peak occurring in September and October. The data suggest periodic outbreaks, with escalating case numbers observed in 2010, 2012, and notably in 2013 and 2014 with a huge surge. The years following 2014 saw decreases but still exhibited seasonality. In 2022 and 2023, case numbers began to increase sharply again in late summer, suggesting the possibility of another escalating cycle of transmission.

Deaths Analysis

Death occurrences due to Dengue in Chinese mainland are relatively rare despite occasional outbreaks; fatalities are inconsistent and do not strictly correlate with the number of cases. Notable instances of Dengue-related deaths occurred in September 2012, September and October 2014, October 2016, October 2017, December 2018, October and November 2019, and most recently in September 2023. This irregular pattern indicates that while Dengue can be fatal, the mortality rate is generally low and sporadic across different years.

Distribution



CNIDs

Free, Lightweight, Open-source,
Smart Surveillance for
Chinese Infectious Diseases

Version: 2024-01-05 (UTC+)