

Chinese Notifiable Infectious Diseases Surveillance Report

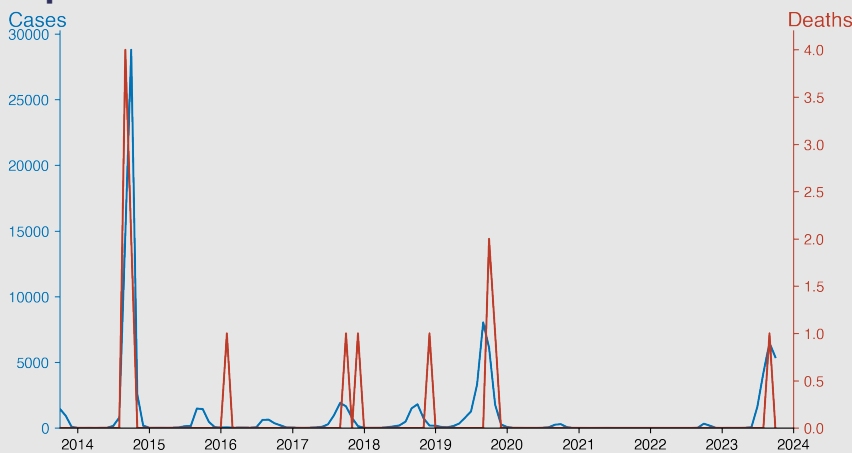
Dengue

October 2023

Introduction

Dengue is a mosquito-borne viral infection common in warm, tropical climates worldwide. It is caused by the dengue virus, which is transmitted primarily by *Aedes* mosquitoes, especially *Aedes aegypti*. Dengue presents with high fever, severe headache, pain behind the eyes, joint and muscle pain, rash, and mild bleeding. Recovery typically takes about a week. However, severe forms can develop, leading to dengue hemorrhagic fever or dengue shock syndrome, which can be life-threatening. No specific treatment exists; care is mainly supportive. Prevention relies on mosquito control and avoiding bites. Vaccines are being developed but are not yet widely available.

Temporal Trend



Highlights

A significant increase in dengue cases during the peak transmission season (July to October), exemplified by a steep rise in cases from June (55 cases) to July (1,604 cases) in 2023.

- A notable pattern of inter-annual fluctuations in case numbers, with particularly high peaks in 2014, 2017, 2019, and a resurgence in 2023, suggesting potential cyclical trends in dengue outbreaks.

- Relative stability in mortality rates despite fluctuating case numbers, indicating either stable case management practices or underreporting of dengue-related deaths. The latest data from October 2023 reports 5,388 cases with no deaths.

- The year 2023 stands out for a substantial increase in dengue cases, reaching 6,494 cases in September and slightly decreasing to 5,388 in October, which could indicate an ongoing transmission that requires

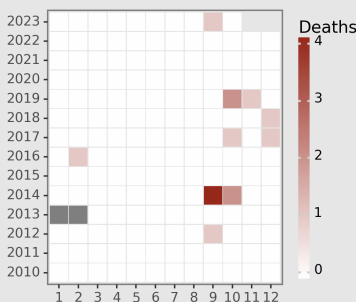
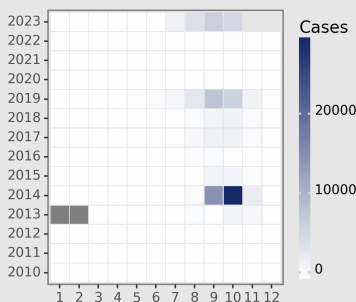
Cases Analysis

The Dengue case data for mainland China reveal a pronounced seasonality, with cases typically peaking between July and October, corresponding with the warmer and more humid months favorable for mosquito vectors. A striking increase in case numbers is observed in years 2013 and 2014, with the highest monthly cases exceeding 28,000 in October 2014. Over the years, there were fluctuations with some decrease in cases after 2014, but a resurgence is notable in September 2023, with 6,494 cases, indicating potential epidemiological or environmental changes facilitating transmission.

Deaths Analysis

The mortality data related to Dengue in mainland China shows a low fatality rate, with years 2010 through March 2022 reporting very few deaths, despite the varying case numbers. Notably, in September 2012, the first death was reported. The years 2014 and 2019 saw a slight increase in deaths, with six fatalities, which could correlate with the surge in case numbers. There is a trend of either zero or a single death per month, even with higher case counts, suggesting effective clinical management of cases. The most recent data from September 2023 report one death amid a high case number, underscoring continued low Dengue-related mortality.

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