

Chinese Notifiable Infectious Diseases Surveillance Project

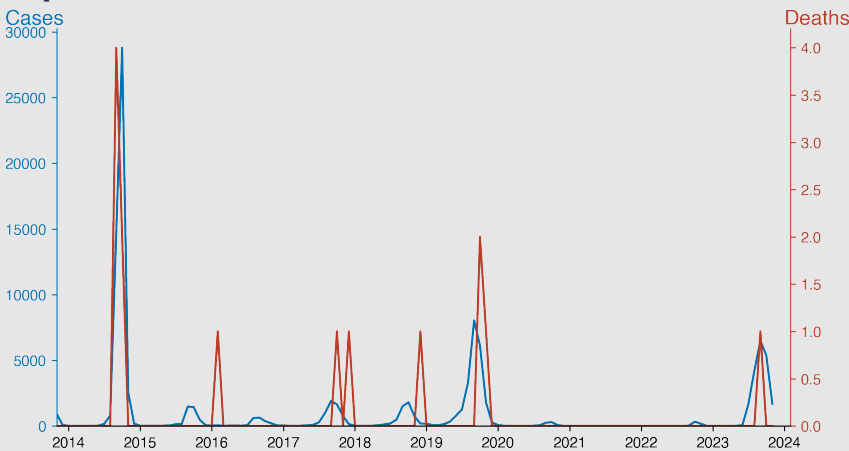
Dengue

November 2023

Introduction

Dengue is a mosquito-borne viral infection causing a severe flu-like illness. Often found in tropical and sub-tropical climates worldwide, it is transmitted by the Aedes mosquitoes, mainly Aedes aegypti. Symptoms, appearing 4-7 days after the mosquito bite, can range from mild fever to incapacitating high fever, severe headache, and pain behind the eyes. Serious cases can develop into dengue hemorrhagic fever resulting in bleeding, blood plasma leakage, or even dengue shock syndrome leading to dangerously low blood pressure. There is no specific treatment but early detection and access to proper medical care can lower fatality rates.

Temporal Trend



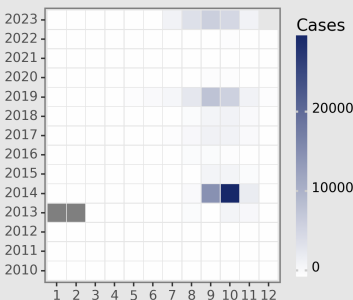
Highlights

- There has been a notable surge in dengue cases during the warmer months, particularly from July to October, with peak transmission in September 2023.
- Despite the high number of cases, the mortality rate has stayed remarkably low; only one death was reported amidst the thousands of cases in September 2023.
- The current trend in 2023 shows a decrease in cases in November compared to the peak in September, suggesting a seasonal decline as the weather cools.
- Overall, the situation in November 2023 indicates an active but decreasing transmission of dengue, with no significant impact on mortality rates at present.

Cases Analysis

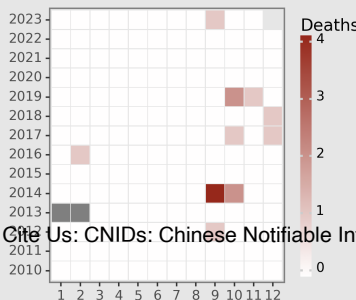
Dengue case trends on the Chinese mainland from 2010 to 2023 follow a consistent seasonal pattern, with a marked increase during the warmer months, particularly from July to October, which corresponds to peak mosquito activity. An anomaly in this pattern is the decrease of cases from 2018 to 2021, then an increase again in 2022 and 2023. The peak was observed in 2023 September (6494 cases), surpassing the 2014 September high (14759 cases). A notable escalation is evident starting from 2013, with a drastic increase in 2014; however, this heightened incidence does not persist consistently in the following years.

Distribution



Deaths Analysis

Despite fluctuations and occasional outbreaks of dengue cases, the death toll associated with dengue on the Chinese mainland remains low, with only a few deaths reported annually and many years displaying zero mortality. The most significant number of deaths within a month over the observed period is four in 2014 September. Over 13 years, mortality is relatively infrequent compared to incidence peaks, which may suggest effective clinical management strategies or a predominance of less severe dengue strains during the outbreaks. The overall lethality remains low, as shown by the data spanning from 2010 to 2023.



CNIDs

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

Cite Us: CNIDs: Chinese Notifiable Infectious Diseases Surveillance Project. <https://github.com/CNIDs>

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