

Chinese Notifiable Infectious Diseases Surveillance Report

Dengue

December 2023

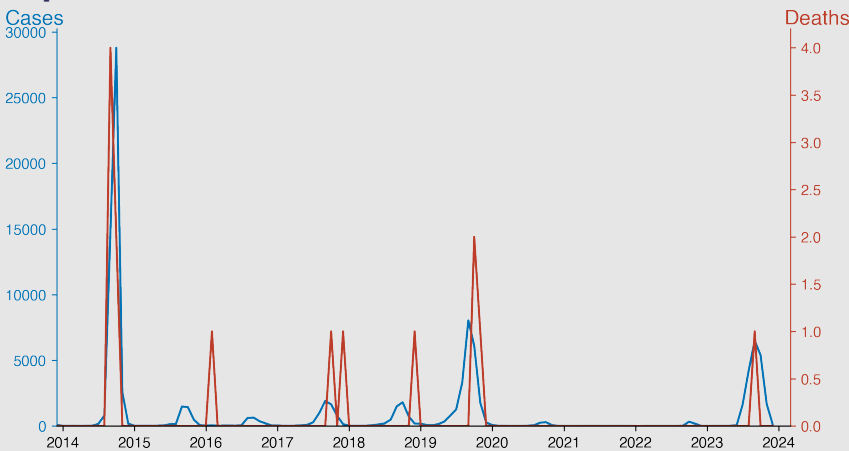
Introduction

Dengue is a mosquito-borne viral infection that affects humans, causing flu-like symptoms. It is transmitted by the bite of female mosquitoes, primarily *Aedes aegypti*, which are mostly found in tropical and subtropical regions worldwide. The disease may escalate to severe forms known as Dengue Hemorrhagic Fever and Dengue Shock Syndrome, which can be life-threatening. There's currently no definitive treatment for Dengue, however, prevention strategies such as mosquito control are key to disease reduction. A few dengue vaccines are available but not universally recommended yet.

Highlights

- Dengue cases in the Chinese mainland show a seasonal pattern, peaking from July to October annually, aligning with ideal mosquito breeding conditions.
- After a significant outbreak in 2014, case numbers generally declined until a resurgence in 2023, mirroring previous seasonal trends.
- Fatality due to dengue remains remarkably low, with most months over several years reporting no deaths, suggesting effective disease management.
- The major outbreaks in September and October 2014 presented the highest recorded cases; however, the recent spike in 2023 has not seen an accompanying increase in mortality.

Temporal Trend



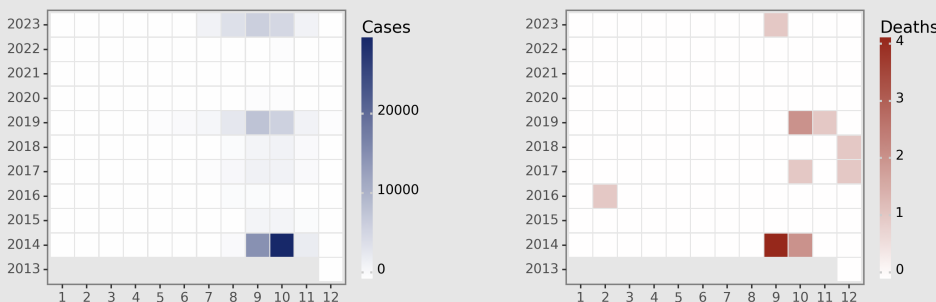
Cases Analysis

The Dengue data for Chinese mainland exhibits seasonal outbreaks, with a substantial increase in the number of cases from July to October each year. Notably, 2014 experienced the most severe outbreak, with cases peaking to 28,796 in October. A recurrence of outbreaks is observed annually, although the magnitude varies. The year 2020 shows a notable decrease in cases, which could correlate with public health interventions due to the COVID-19 pandemic. Since 2021, cases have significantly lowered, suggesting improved control measures or underreporting. The recent data of 2023 indicates a re-emergence with 6,494 cases in September, necessitating vigilant monitoring.

Deaths Analysis

The reported Dengue-related deaths in Chinese mainland are minimal, considering the total number of cases, highlighting a low case-fatality ratio. A total of 10 deaths were reported during the most significant outbreaks from 2014 to 2019. There were no deaths recorded in 2015 and 2018, with single occurrences in some years like 2016 and 2017. Despite a spike in cases again in 2023, the mortality remained low, with only one death reported—a testimonial to effective clinical management. Nevertheless, any death warrants a review of clinical care pathways to ensure optimal patient outcomes.

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