

Chinese Notifiable Infectious Diseases Surveillance Report

Dengue

January 2024

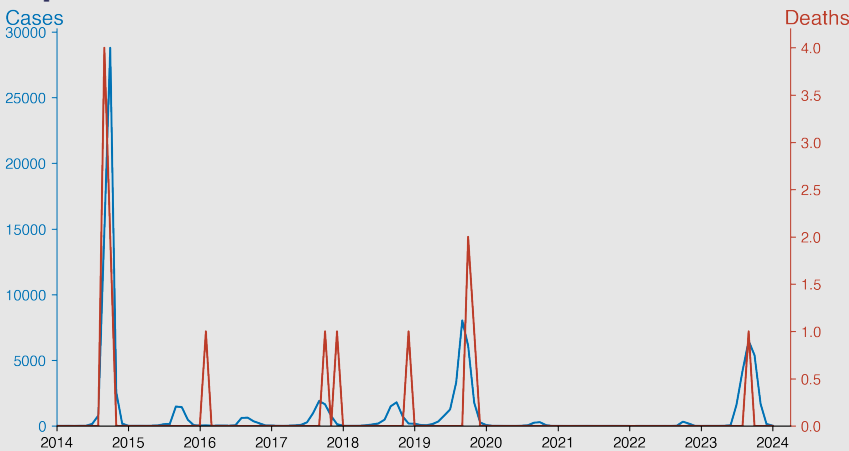
Introduction

Dengue is a mosquito-borne viral infection causing a severe flu-like illness that can potentially develop into a fatal complication called severe dengue. The dengue virus has four distinct serotypes; infection with one serotype provides lifelong immunity to it but not to the others. Transmission occurs through the bite of infected *Aedes* mosquitoes, primarily *Aedes aegypti*, found worldwide in urban and suburban areas. There is no specific treatment for dengue, but early detection and access to proper medical care significantly lowers fatality rates. Prevention focuses on mosquito control and avoiding bites.

Highlights

- ****Seasonal peaks****: Dengue cases in China peak from July to October, correlating with warmer, humid conditions favorable for mosquito breeding.
- ****Yearly fluctuations****: Significant annual variation in cases, with major outbreaks in 2014, 2019, and 2023, highlights the episodic nature of dengue and the impact of health interventions.
- ****Post-2019 decrease****: A notable decline in cases after 2019 suggests effective vector control and public health measures.
- ****Low mortality rate****: Despite case fluctuations, the mortality rate remains low, indicating successful case management and treatment in China.

Temporal Trend



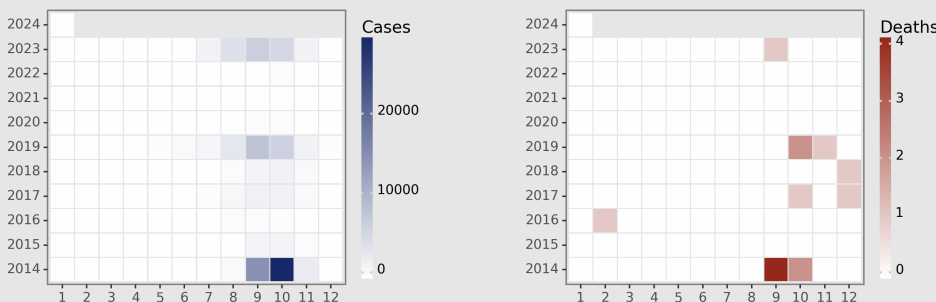
Cases Analysis

The Dengue data from Chinese mainland over the years illustrates a clear seasonal pattern with peaks typically in the late summer and autumn months, notably August to October. The data shows a significant outbreak in 2014, with a sharp increase in cases peaking in October. Subsequent years exhibit fluctuating but generally lower annual case counts, with notable spikes in 2019 and a resurgence in 2023. The marked decline in cases from 2020 to early 2022 could be attributed to pandemic-related restrictions, which inadvertently reduced mosquito-borne disease transmission. However, the resurgence in 2023 signals a potential return to pre-pandemic Dengue transmission levels.

Deaths Analysis

Dengue-related deaths are rare, indicating either the less severe nature of the strains circulating in Chinese mainland or effective clinical management of cases. The data shows sporadic occurrences of fatalities, with a total of 10 deaths recorded between 2014 and 2023, despite the fluctuating case numbers. The highest mortality (4 deaths) was reported in September 2014 during a significant outbreak. Deaths in 2016, 2017, 2018, 2019, and 2023 were isolated incidents, highlighting that while dengue poses a public health concern in terms of case numbers, the risk of death remains low, likely due to improved healthcare response and disease awareness.

Distribution



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