

Chinese Notifiable Infectious Diseases Surveillance Report

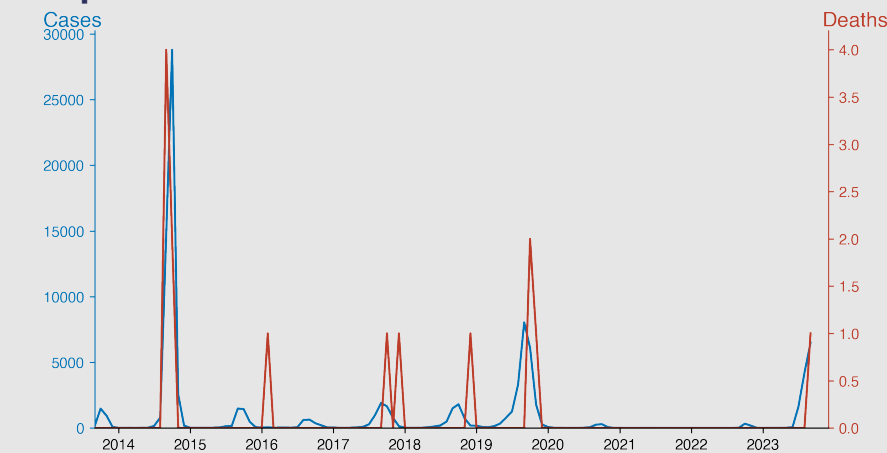
Dengue

September 2023

Introduction

Dengue is a mosquito-borne viral infection found in tropical and subtropical regions around the world, predominantly in urban and semi-urban areas. The dengue virus is transmitted by female mosquitoes mainly of the species *Aedes aegypti* and, to a lesser extent, *Ae. albopictus*. Dengue is characterized by flu-like symptoms including high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. Recovery typically takes two to seven days. Although most infections result in mild illness, some can develop into severe dengue, which can be fatal if not properly treated.

Temporal Trend



Highlights

The number of Dengue cases in mainland China shows a significant seasonal trend, with cases typically peaking in the months between July and October.

- A significant drop in the number of cases was observed from 2020 to 2022, but there was a sharp increase in cases starting from July 2023, with a peak in September at 6494 cases.
- There have been a few isolated incidents of deaths due to Dengue, but for the most part, the disease has a low fatality rate in mainland China.
- As of September 2023, the disease situation is concerning due to the recent sharp uptick in cases.

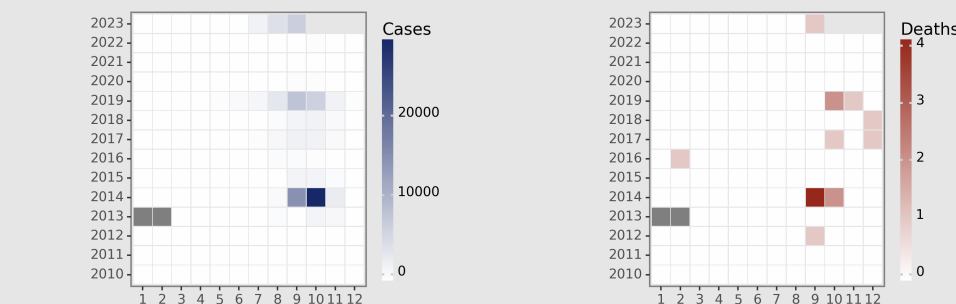
Cases Analysis

Whilst Dengue cases in mainland China are generally low year-round, sharp peaks are evident during the hot and wet months of late summer and early fall, from August to October, reflecting the transmission pattern of the Dengue virus by *Aedes* mosquitoes. These peak months saw cases rise dramatically every year, most notably in September 2023 with 6494 cases - the absolute maximum. The overall pattern demonstrates a yearly oscillation in case numbers with dramatically enhanced intensity occurring approximately every four years. It should be considered that climate change, alterations in vector control measures, socio-economic growth, and urbanization could impact future transmission.

Deaths Analysis

Considering the reported data, Dengue in mainland China seems to exhibit a markedly low case fatality rate. Among all the reported Dengue cases from 2010 to 2023, only eight fatalities were noted. Deaths remained almost consistently at zero throughout the years, with sparse occurrences mostly appearing in the high case count months: September 2012, September and October 2014, October 2017, December 2018, October and November 2019, and September 2023. Despite a dramatic increase in case numbers, the number of deaths remains low, implying an effective healthcare response or a less virulent strain.

Distribution



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Version: 2023-12-24 (CST+08)

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