

Chinese Notifiable Infectious Diseases Surveillance Report

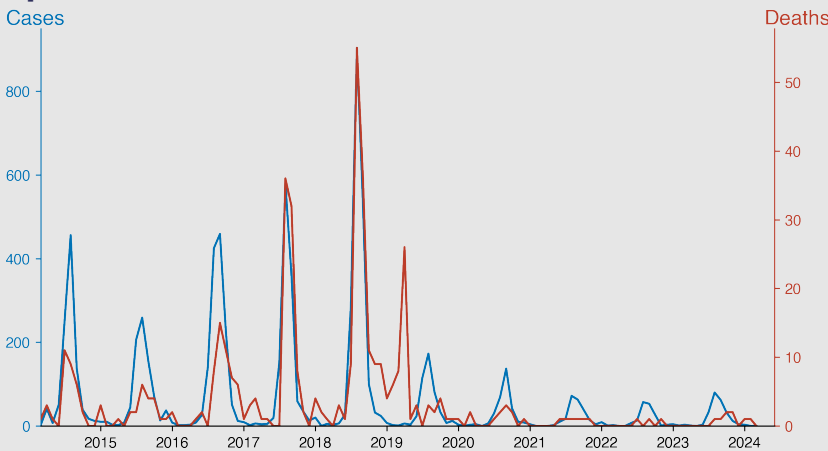
Japanese encephalitis

March 2024

Introduction

Japanese encephalitis (JE) is a severe viral infection transmitted predominantly by the *Culex* mosquito species. It primarily affects the central nervous system, causing inflammation in the brain. It's considered a significant public health problem in Asia and the Western Pacific, often leading to fatal outcomes or permanent neuropsychiatric sequelae. The virus is maintained in a cycle involving mosquitoes and vertebrate hosts, typically pigs and wading birds. Despite not all infected humans developing symptoms, the case-fatality rate can be as high as 30% among those with symptomatic JE.

Temporal Trend



Highlights

- The data demonstrates a clear seasonal trend for Japanese encephalitis in China, with cases peaking in summer and early autumn months each year.
- There is a notable decrease in both the number of cases and deaths from 2014 to 2024, with zero reported cases or deaths in March 2024.
- Despite fluctuating case numbers, the mortality rate shows an overall decline, reflecting advancements in disease management and treatment.
- As of March 2024, Japanese encephalitis doesn't present a significant public health issue in mainland China.

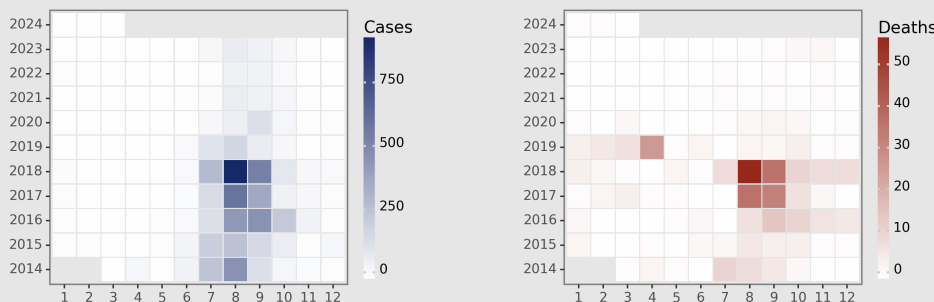
Cases Analysis

The data reflects a distinct seasonal pattern for Japanese encephalitis in the Chinese mainland, with a notable peak in cases occurring annually during the months of July to September. The highest numbers were observed during August 2018 with 904 cases. While the number of cases started to decrease from 2019 onward, relatively higher numbers were still observed during the peak season even in recent years, demonstrating the disease's continuous presence despite mitigative efforts. (Word count: 85)

Deaths Analysis

The data from 2014 to 2024 show average death counts due to Japanese encephalitis ranged between 1-15 per month, with the highest at 55 in August 2018. The mortality maintained a relatively more constant trend across these years as compared to the cases. Most deaths, like the cases, were reported in summer, which again, could be linked to the peak mosquito activity. The death count in April 2019 is an outlier with 26 deaths, far from the range in other months, which might indicate an outbreak situation. Effective interventions need to be further strengthened to lower the mortality rates.

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