Chinese Notifiable Infectious Diseases Surveillance Report

Japanese encephalitis

December 2023

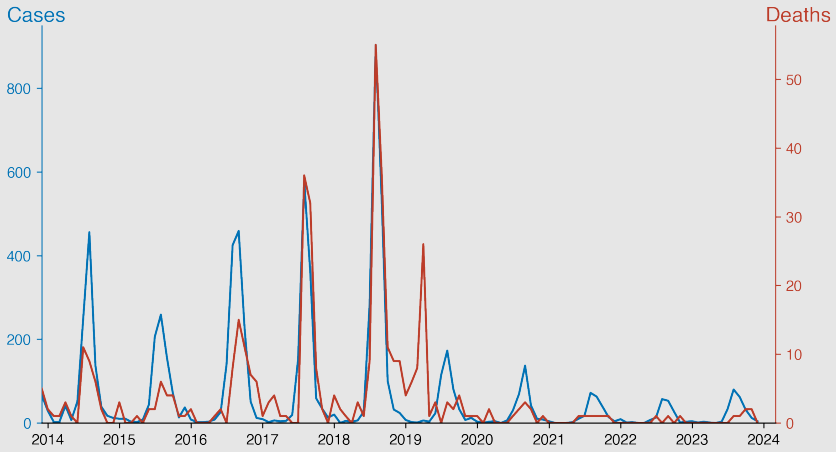
Introduction

Japanese encephalitis is a viral disease transmitted by mosquitoes in several regions of Asia. It is a type of brain inflammation caused by the Japanese encephalitis virus, resulting in symptoms ranging from mild, flu-like discomfort to severe neurological disturbances. Although rare, the disease can be lethal or leave individuals with long-term complications. The risk of contraction is higher in rural farming areas where the mosquito vector is common. Vaccination is available and recommended for individuals residing or travelling to high-risk areas.

Highlights

- Seasonal peaks during July and August each year, with the highest recorded in August 2018 (904 cases, 55 deaths), indicative of increased mosquito activity.
- Marked fluctuations in case numbers and case-fatality rates, with notable declines observed post-2018, suggesting improvements in control measures.
- A significant drop in cases since the peak in 2018, with 2023 data revealing a further decrease in incidence and mortality, potentially due to effective interventions or other health event impacts.
- Ongoing transmission with sporadic cases throughout the year, reinforcing the need for continued surveillance and vector control strategies.

Temporal Trend



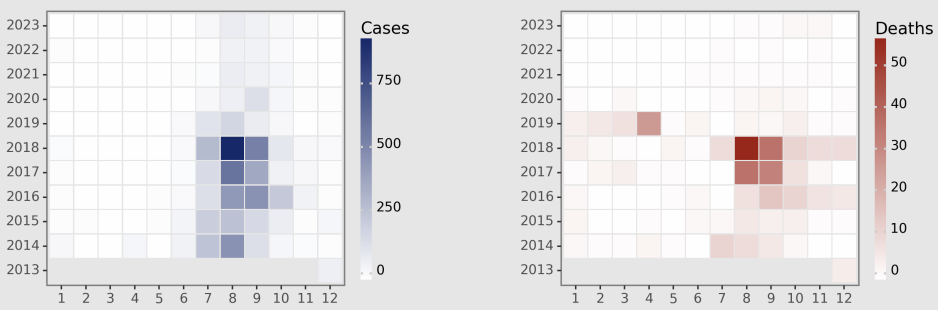
Cases Analysis

Japanese encephalitis (JE) in the Chinese mainland displays a marked seasonality with cases peaking in July and August across the years, coinciding with the vector's (mosquito) active period. A notable increase occurred in 2018 with a peak of 904 cases in August, indicating a potential outbreak or lapse in preventive measures. Overall, cases have declined post-2018, suggesting improvements in JE control programs, vaccination efforts, or underreporting. The data also shows sporadic low-level transmission during non-peak months throughout the observed period.

Deaths Analysis

Deaths due to JE in the Chinese mainland show an overall lower incidence than case counts, but follow a similar seasonal pattern with elevated mortality in the summer months. The highest fatality rates were seen during peak case months, particularly August 2018 with 55 deaths, again pointing to a significant outbreak. Despite fluctuations, death counts have followed a downward trend, with few to no deaths reported in the non-peak seasons of recent years. The decline in mortality may reflect improved case management, effective vaccination strategies, or changes in reporting practices.

Distribution



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