Chinese Notifiable Infectious Diseases Surveillance Report

Japanese encephalitis

November 2023

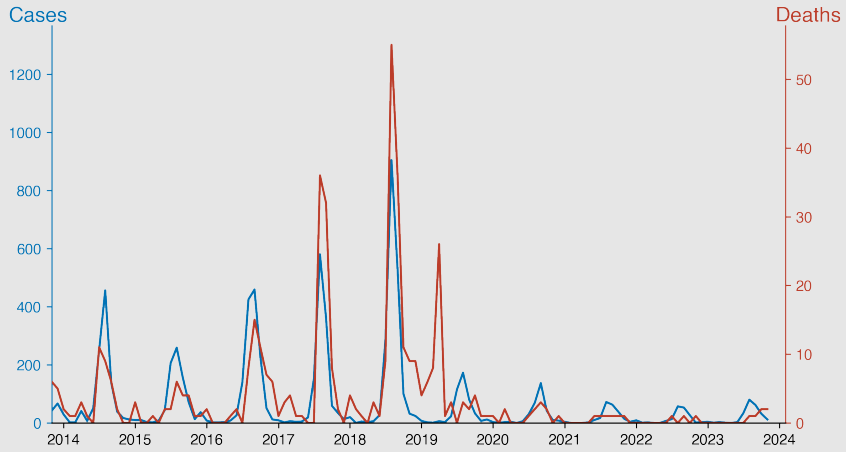
Introduction

Japanese encephalitis (JE) is a viral disease that is transmitted through the bite of infected mosquitoes. It's the leading cause of viral encephalitis in Asia. JE primarily affects children and can cause fever, headache, vomiting, neck stiffness, and seizures. In severe cases, it can result in inflammation of the brain, paralysis, and even death. There is no specific treatment, but the disease is vaccine-preventable. JE is a zoonotic disease, with pigs and birds as the main hosts of the virus.

Highlights

- Seasonality is evident with peak incidence in the warmer months (June to August), reflecting mosquito activity patterns, with cases subsiding towards winter.
- An overall decline in cases and deaths has been observed from 2010 to 2023, indicating improved control and prevention measures.
- The peak year in the given dataset was 2010, with a marked decrease subsequently, suggesting effective intervention or possible underreporting in later years.
- Mortality rates vary annually and do not consistently correlate with the number of cases, suggesting variable disease severity or changes in healthcare access and reporting.

Temporal Trend



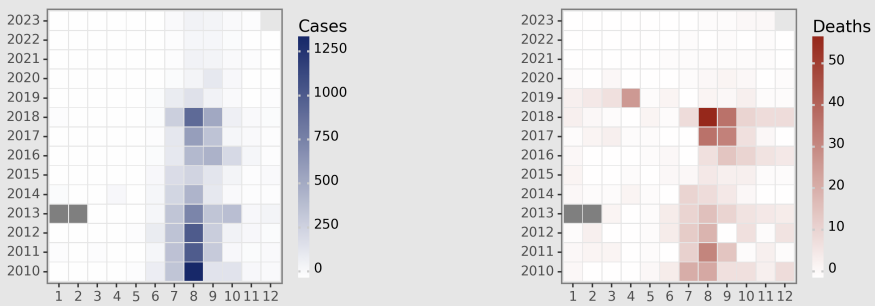
Cases Analysis

The distribution of Japanese encephalitis cases on the Chinese mainland from January 2010 to November 2023 shows clear seasonality with a peak typically occurring in July or August, reflecting the viral transmission linked to the activity of mosquito vectors. The highest number of cases was reported in August of several years, notably 1301 cases in 2010 and 986 in 2012, indicating substantial yearly outbreaks. Notably, there is a general declining trend in the annual number of cases, particularly noticeable after 2018.

Deaths Analysis

The fatality numbers associated with Japanese encephalitis in the same period show a peak corresponding to the high case numbers in July and August, which are the peak transmission months. The mortality rate fluctuates notably, with the highest number of deaths in August 2018 at 55. There has been a relative decline in deaths from 2019 onwards, suggesting possible improvements in either disease management, reporting, vaccination coverage, or vector control strategies. The data also indicates some variability in the case-fatality ratio across the years.

Distribution



CNIDs

Free, Lightweight, Open-source, Smart Surveillance for Chinese Infectious Diseases

Version: 2024-01-04 (UTC+)

IMPORTANT: The text in boxs is generated automatically by ChatGPT.