Chinese Notifiable Infectious Diseases Surveillance Report

Pertussis

November 2023

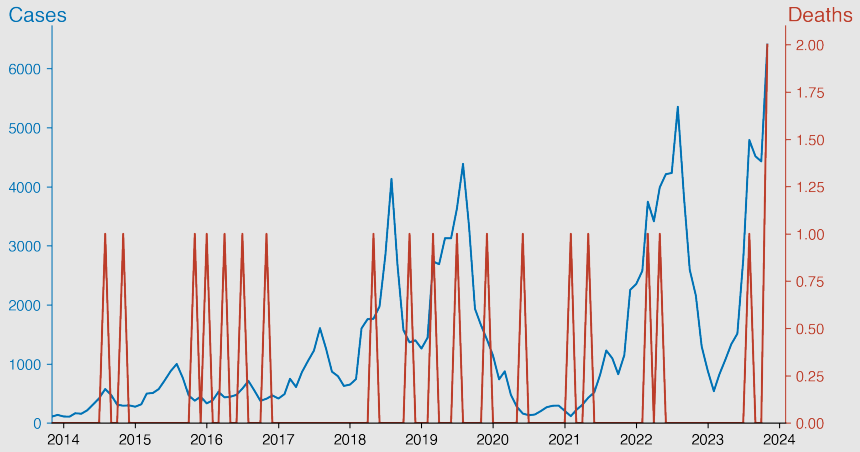
Introduction

Pertussis, also known as whooping cough, is an infectious bacterial disease caused by Bordetella pertussis. It primarily affects the respiratory tract and is characterized by severe coughing spells that often end in a "whooping" sound during the intake of breath. Although it affects individuals of all ages, it can be severe, and sometimes deadly, in infants and young children. Pertussis is highly contagious and spreads through contact with respiratory droplets from coughs or sneezes from an individual carrying the infection. Methods of prevention include vaccination and good hygiene practices.

Highlights

- A significant increase in Pertussis cases in mainland China, with cases growing from 106 in November 2013 to 6410 in November 2023.
- Deaths remain sporadically low; however, a minor rise to 2 deaths in November 2023 may hint at increased disease severity.
- Seasonal peaks in late summer suggest a pattern in transmission, pivotal for timing public health interventions.
- The steady rise in cases underscores the necessity for improved surveillance, vaccination campaigns, and public education to address the pertussis challenge.

Temporal Trend



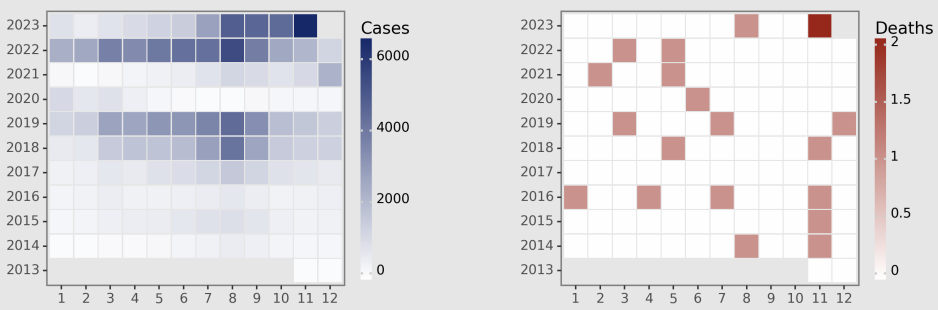
Cases Analysis

Pertussis cases in Chinese mainland showed a fluctuating but overall increasing trend over a decade. Starting with 106 cases in 2013 November, numbers were consistently under 500 cases per month until mid-2014. From 2015 onwards, there was a notable rise each year, reaching peaks during the summer months, typically July or August. Remarkably, there was a dramatic increase to 6410 cases by 2023 November, reflecting a potential public health challenge. Seasonal variation appears consistent, possibly illustrating transmission dynamics influenced by climate or social patterns.

Deaths Analysis

Over the observed period, Pertussis-related deaths remained very low, with only sporadic fatalities recorded despite large numbers of cases. Initially, there were no deaths until August 2014. Overall, there seems to be no direct correlation between case numbers and deaths, indicating a relatively low case-fatality rate or effective clinical management. The highest number of deaths in a single month is 2, recorded in 2023 November, which contrasts with the high case number that month, suggesting maintained low mortality even with increased incidence.

Distribution



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