Chinese Notifiable Infectious Diseases Surveillance Report

Pertussis

November 2023

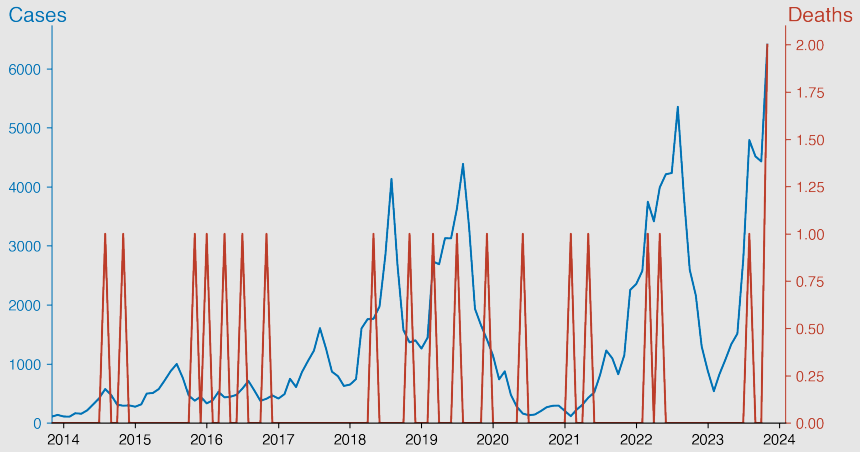
Introduction

Pertussis, also known as whooping cough, is a highly contagious bacterial infection. It is caused by Bordetella pertussis and is characterized by severe coughing spells that can make it difficult to breathe. The cough often ends with a "whoop" sound when the person breathes in. Pertussis is a vaccine-preventable disease, yet remains a significant health concern, particularly for infants and young children who are either unvaccinated or incompletely vaccinated. Recovery can be slow and complications can include pneumonia, encephalopathy, and death in severe cases.

Highlights

- A gradual increase in pertussis cases was observed in the Chinese mainland from 2010 to 2023, with a significant surge in numbers beginning from 2017 onwards.
- The highest reported number of cases in a single month occurred in November 2023 with 6,410 cases, indicating that pertussis is becoming more prevalent or reporting has become more robust.
- Despite the rise in cases, the mortality rate remained low, with only a few recorded deaths per year, showing potential effectiveness in clinical management and treatment.
- Notably, there was a notable decrease in cases in 2020, possibly due to pandemic-related restrictions or changes in healthcare-seeking behavior during that period.

Temporal Trend



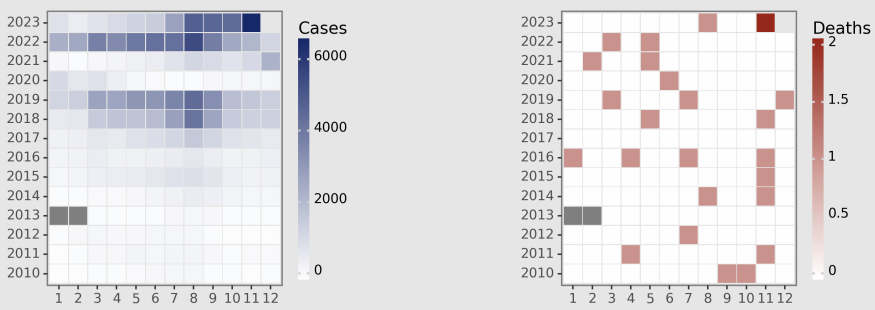
Cases Analysis

A steady increase in pertussis cases was observed in the Chinese mainland from 2010 to 2023. Initial average monthly cases hovered around 150, with a gradual rise year-over-year. Noticeable spikes occurred each summer, reaching peak levels in November 2023 with 6410 cases. The trend indicates seasonality, with higher transmission in warmer months. A significant leap in cases began in 2017, escalating further by 2023. Data also shows a sharp drop in early 2020, likely due to stringent measures during the COVID-19 pandemic.

Deaths Analysis

Mortality due to pertussis in the Chinese mainland remained rare from 2010 to 2023, with just 13 reported deaths over 13 years. Deaths were sporadic, with years like 2015 and 2018 having only 1 recorded death each, despite high case numbers. The highest number of fatalities documented was in November 2023, with 2 deaths. This suggests that while incidence rates rose, the case-fatality rate remained low, potentially reflecting improved healthcare access, vaccination, or disease reporting. Nonetheless, the threat of fatalities remains, underscoring the need for continued vigilance and immunization efforts.

Distribution



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Version: 2024-01-04 (UTC+)

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