

# Chinese Notifiable Infectious Diseases Surveillance Report

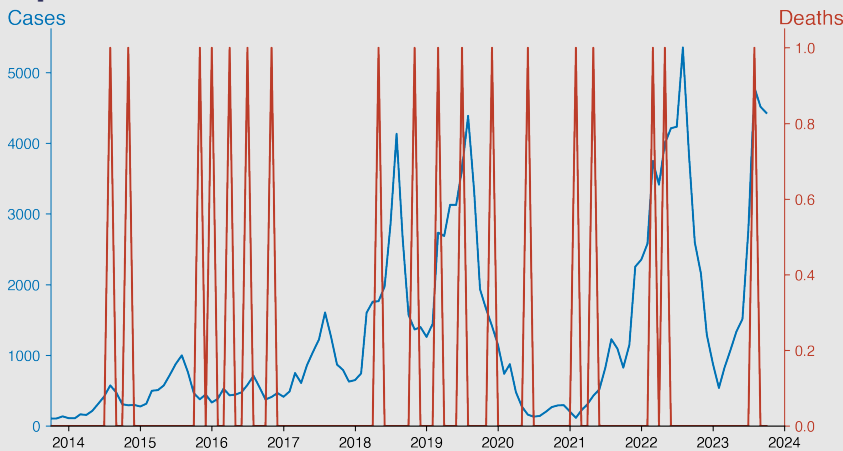
## Pertussis

October 2023

### Introduction

Pertussis, or whooping cough, is a highly contagious respiratory disease caused by the bacterium *Bordetella pertussis*. It is known for uncontrollable, violent coughing which often makes it hard to breathe. After fits of coughing, someone with pertussis often needs to take deep breaths which result in a "whooping" sound. Pertussis can affect individuals of any age but is most severe for babies. The best prevention measure is vaccination with the DTaP vaccine for children and Tdap booster for older children, adults, and especially pregnant women.

### Temporal Trend



### Highlights

- Steady increase in pertussis cases observed since 2010, reflecting escalating transmission or improved case detection across mainland China.
- Deaths remain infrequent despite rising case numbers, indicating enhanced healthcare response or lower virulence.
- Significant surge in cases from July to October 2023 suggests possible outbreak or reporting anomaly, requiring urgent public health investigation.
- The persistence of cases despite vaccination efforts points toward gaps in herd immunity or vaccine coverage, warranting review of immunization strategies.

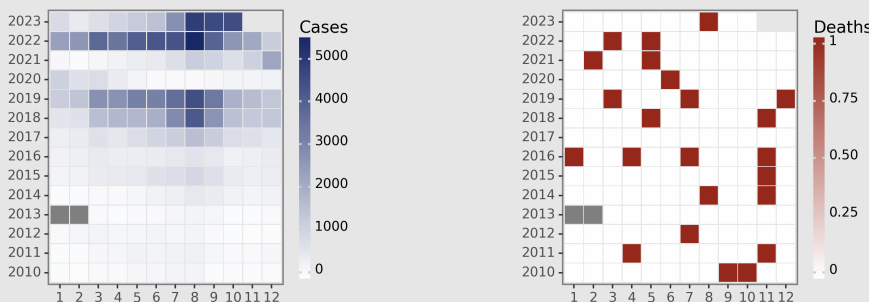
### Cases Analysis

The pertussis case data from mainland China indicates a notable increasing trend from 2010 to 2023. Beginning with relatively fewer cases (88 in January 2010), there is a rise peaking in August each year, likely due to seasonal influences. The data also divulges a substantial escalation over the years, specifically from 2017 onwards, with a significant surge in 2023, showing the highest reported cases (4793 in August). This upward trajectory might be due to various factors, including improved diagnosis, reporting practices, or diminished vaccine efficacy over time.

### Deaths Analysis

The number of deaths associated with pertussis in mainland China, as per the available data, is relatively low compared to the cases reported. From 2010 to 2023, the total deaths recorded in a month rarely exceeds one, indicating a low case-fatality rate. However, this low mortality could be attributed to effective clinical management and vaccination coverage. It's noteworthy that despite increasing cases, the number of deaths has not shown a parallel rise, suggesting that pertussis, while highly infectious, is being managed in a way that minimizes fatalities.

### Distribution



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