

Chinese Notifiable Infectious Diseases Surveillance Report

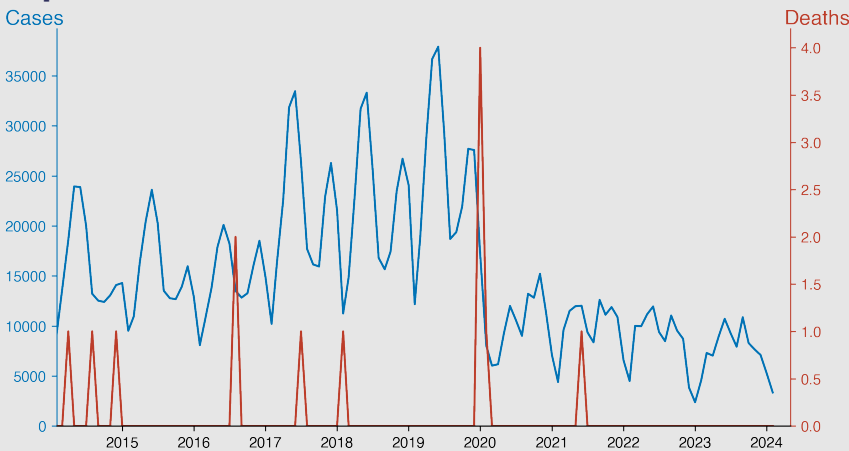
Mumps

February 2024

Introduction

Mumps is a contagious viral infection characterized by swelling of the parotid glands, which are the major salivary glands located near the ears. Common symptoms include fever, muscle pain, headache, and fatigue. The virus spreads through respiratory droplets or direct contact with an infected individual. Historically common among children, the incidence of mumps has markedly decreased with the advent of the measles, mumps, and rubella (MMR) vaccine. Complications can include meningitis, encephalitis, orchitis, and hearing loss. Outbreaks can still occur, especially in settings with close contact, like schools or colleges.

Temporal Trend



Highlights

- There's been a significant decrease in mumps cases in mainland China from 2014 to 2024, with peak cases dropping from around 33,000 in June 2018 to just over 10,000 in June 2023.
- Despite fluctuations, a downward trend appears in recent years, as February 2024 only recorded 3344 cases.
- Fatalities have always been extremely low, with the highest recorded being 4 deaths in January 2020.
- The disease shows a clear seasonal pattern, with more cases appearing in the spring and summer months compared to fall and winter.

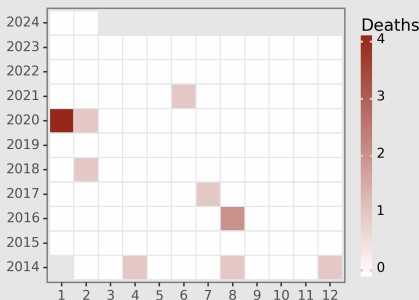
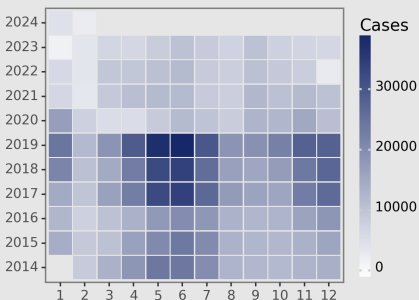
Cases Analysis

Analyzing the mumps cases in Chinese mainland from February 2014 through February 2024, a clear seasonal pattern emerges with peaks often occurring in the spring and early summer months, as shown by spikes in April-June each year. The highest number of cases were reported in June 2019 with 37,913 cases. The years 2017 to 2019 witnessed a gradual increase in reported cases, suggesting a potential worsening of the situation. Notably, there was a marked decrease in cases beginning in 2020, continuing to 2024. This decline could be associated with improved vaccination efforts or social and environmental changes, such as those prompted by the COVID-19 pandemic.

Deaths Analysis

Over the same period, mumps-associated deaths were incredibly rare, with only 7 reported fatalities out of hundreds of thousands of cases, resulting in a very low case-fatality ratio. Deaths sporadically occurred in April 2014, August 2014, December 2014, August 2016, July 2017, February 2018, and June 2021, with no clear seasonal pattern or trend over time. The absence of mumps-related deaths after June 2021 up to February 2024 suggests that while mumps remains a public health concern, the risk of death from the disease is extremely minimal or that the health system has become more effective in managing mumps cases to prevent fatalities.

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