Chinese Notifiable Infectious Diseases Surveillance Report

Meningococcal meningitis

December 2023

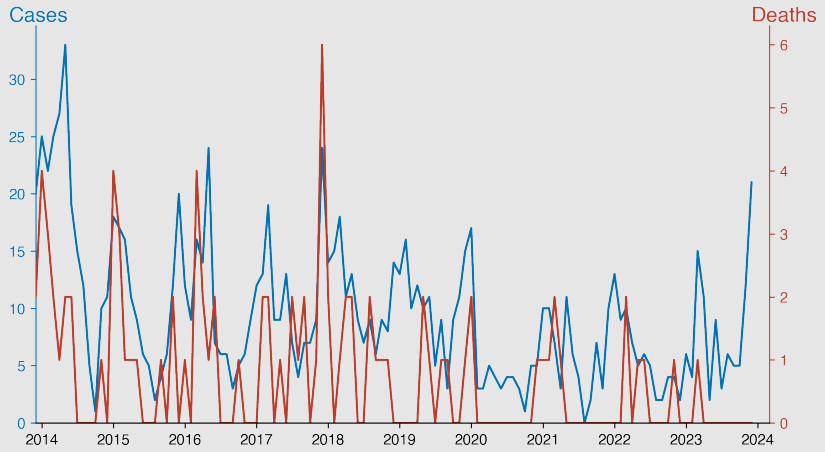
Introduction

Meningococcal meningitis is a severe bacterial infection caused by Neisseria meningitidis. This acute inflammation predominantly affects the thin lining around the brain and spinal cord, known as the meninges. Primarily contagious, it spreads through close or prolonged contact with a patient's respiratory or throat secretions. Symptoms vary from fever, severe headache, vomiting to a stiff neck. Its complications can be severe and include neurological damage and death. Vaccination is effective for prevention. Prompt antibiotic treatment is required upon the onset of symptoms.

Highlights

- Notable decline in meningococcal meningitis cases and fatalities from 2014 peaks to December 2023, showing progress in control measures.
- Occasional case surges, like March and December 2023, suggest periodic transmission risks, potentially linked to seasonal patterns.
- Sustained reduction in deaths over the years, with zero fatalities in many months of 2023, indicating enhanced medical management and prevention strategies.
- Despite the overall downtrend, the rise in cases to 21 in December 2023, with no associated deaths, underscores the need for vigilant monitoring and preventive action during higher-risk periods.

Temporal Trend



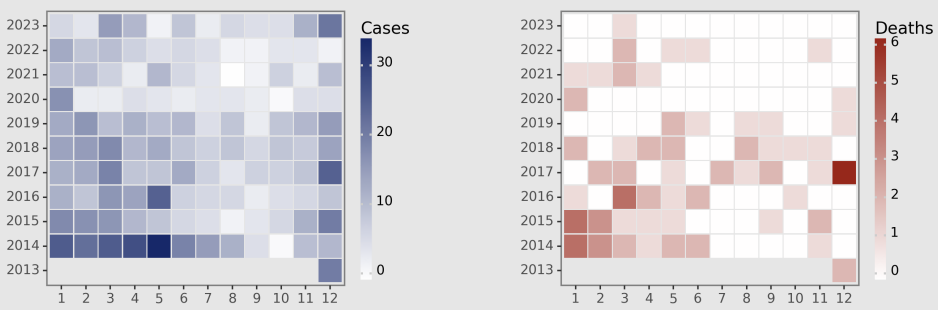
Cases Analysis

Meningococcal meningitis cases in Chinese mainland from December 2013 to December 2023 demonstrate seasonality, with peaks commonly occurring in winter and spring months. An initial higher number of cases in 2014 tapered down by August, reaching single digits in the latter half of most subsequent years. A notable decline in cases starts in 2020 - likely associated with heightened health measures during the COVID-19 pandemic. The lowest reported cases are in August 2021, with a slight uptick observed from January 2023 onwards. The trend suggests successful control measures but warrants continuous surveillance to prevent resurgence.

Deaths Analysis

Fatalities from meningococcal meningitis followed a similar declining trend as cases from 2013 to 2023. Early peaks of 4 deaths each in January 2014 and January 2015 suggest higher virulence or case severity in winter. There is a relatively high mortality observed in December 2017, but the following years show a significant reduction in deaths, with no fatalities for several months at a time from mid-2020 onwards. The data indicates improved case management and possible impacts of public health interventions. Continuous efforts are still required to maintain the decreasing mortality trend.

Distribution



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