Chinese Notifiable Infectious Diseases Surveillance Report

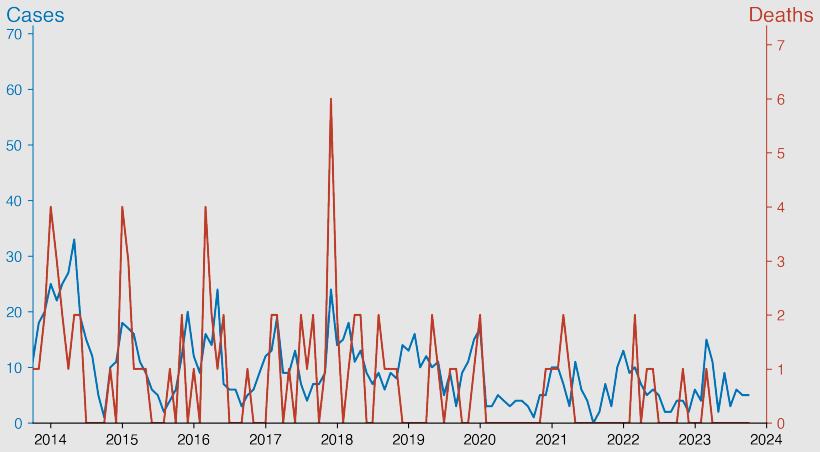
Meningococcal meningitis

October 2023

Introduction

Meningococcal meningitis is a serious infection of the membranes (meninges) surrounding the brain and spinal cord, caused by the bacterium Neisseria meningitidis. This bacterium can also lead to bloodstream infections (meningococcemia). It spreads through respiratory droplets or close contact. Symptoms include stiff neck, fever, headache, vomiting, and confusion. Vaccination can prevent some strains, and early treatment with antibiotics is critical for survival. Meningococcal disease can cause severe long-term complications or death if not treated promptly. It commonly affects young children, but outbreaks can occur in any age group, often in close-quarter living

Temporal Trend



Highlights

A significant decline in meningococcal meningitis cases and deaths has been observed over the observed period, from 2010 to October 2023.

- The data shows seasonal variability, with higher case numbers in the cooler months (January to April) and a drop during the warmer months (May to August).
- There was an unusually low number of cases and no deaths reported in October 2023, indicating effective disease control or underreporting.
- The overall case-fatality ratio has reduced over time, suggesting improvements in healthcare access, disease surveillance, and possibly vaccination campaigns.

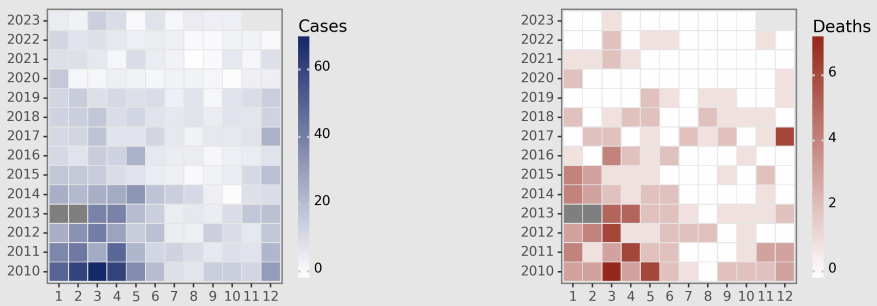
Cases Analysis

An evaluation of Meningococcal meningitis in mainland China from 2010 through October 2023 reveals a fluctuating yet decreasing trend in the number of reported cases. Initially, peaking during early months, with 68 cases in March 2010, cases gradually subside, reaching single digits regularly by 2021. The data indicates an overall reduction in cases over the years with sporadic increases. Notably, there is a sharp decline post-2020, concordant with the COVID-19 pandemic onset, where drastic public health measures may have inadvertently impacted the transmission of other infectious diseases.

Deaths Analysis

Analysing mortality associated with Meningococcal meningitis from 2010 to October 2023 exhibits a declining trend in deaths, with mortality spikes in 2010 March (7 deaths) and a notable 6 deaths in December 2017. The majority of data points post-2010 indicate zero to three deaths per month. This decrease in fatalities may suggest improved clinical interventions, increased vaccination coverage, or better reporting practices. After 2020, coinciding with the COVID-19 pandemic, reported deaths are minimal, potentially influenced by enhanced infection control measures and altered healthcare-seeking behavior.

Distribution



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